



Generell informasjon

Brønnbane navn	34/10-33 B
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	GULLFAKS SØR
Funn	34/10-2 Gullfaks Sør
Brønn navn	34/10-33
Seismisk lokalisering	ST 8134-156 CP.296 OG 297 (BHPOS.CP.270)
Utvinningstillatelse	050
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	608-L
Boreinnretning	DEEPSEA BERGEN
Boredager	75
Borestart	27.04.1989
Boreslutt	10.07.1989
Frigitt dato	10.07.1991
Publiseringsdato	01.01.2012
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	134.0
Totalt målt dybde (MD) [m RKB]	3942.0
Maks inklinasjon [°]	93.7
Temperatur ved bunn av brønnbanen [°C]	102
Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	NESS FM
Geodetisk datum	ED50
NS grader	61° 7' 34.44" N
ØV grader	2° 12' 57.1" E



NS UTM [m]	6777262.00
ØV UTM [m]	457756.18
UTM sone	31
NPDID for brønnbanen	1407

Brønnhistorie

General

Well 34/10-33 B is a sidetrack from the vertical appraisal well 34/10-33 on the Gullfaks South structure. It was the first horizontal well ever drilled on the Norwegian continental shelf. The main purpose of the well was to perform a long period test from a horizontal well through the upper part of the Brent Group. The well should provide important production data and the results from the well should be used to calibrate the simulation model for the reservoir and also to update the geological model for this part of the Brent Group.

Operations and results

Appraisal well was sidetracked 27 April 1989 from the vertical at 1840 m, just below the 13 3/8" casing shoe. The well was drilled with the semi-submersible installation Deepsea Bergen to TD at 3942 m in the Late Jurassic Heather Formation. The well bore was drilled with gel/lignosulphonate mud from kick-off to 1864 m and with Interdrill NT oil based mud from 1864 m to TD. The hole was approximately horizontal in the interval 3670 - 3942 m. During setting of the 7" liner for testing of the hydrocarbon zone, the pipe got stuck and broke between the extension pipe and drill string. Fishing was unsuccessful, and the planned test was therefore not possible. Plugging was performed, and Statoil informed NPD and the partners about the alternatives for future operations. After evaluation of FMT data, it was decided to go for a new sidetrack, 34/10-33 C.

The formation tops came in close to the prognosis. The Brent Group, top Tarbert Formation was encountered at 3215 m. Sandstones of the Brent Group contained oil and gas. Due to lateral pressure barriers the Tarbert Formation proved to be water bearing in the horizontal part of the well bore, although good oil shows were described on cores and well site samples up to 3816 m.

Three cores were cut in the intervals 3742 - 3751 m, 3785 - 3790 m, and 3850.5 - 3860 m in the Tarbert Formation. Two runs with the FMT tool on drill string was performed in the horizontal part of the well. In addition, five tests behind the 9 5/8" casing was performed with CHFT (Cased Hole Formation Tester). One segregated fluid sample was taken with FMT at 3892 m (1 litre water and 8 litres oil/filtrate). Two segregated fluid samples were taken with CHFT at 3299.5 m (3.2 Sm³ gas, 0.9 litre fluid) and at 3335.0 m (2.4 Sm³ gas and 1.1 litre fluid).

The well was plugged back and abandoned on 10 July 1989 for the sidetrack 34/10-33 C.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1850.00	3942.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3742.0	3751.0	[m]
2	3785.0	3790.6	[m]
3	3850.0	3859.8	[m]

Total kjerneprøve lengde [m]	24.4
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



3742-3747m



3747-3751m



3785-3790m



3790-3791m



3850-3855m



3855-3859m

Litostratigrafi



Topp Dyb [mMD RKB]	Litostrat. enhet
157	NORDLAND GP
963	UTSIRA FM
974	HORDALAND GP
1029	NO FORMAL NAME
1139	NO FORMAL NAME
1247	NO FORMAL NAME
1513	NO FORMAL NAME
1562	NO FORMAL NAME
1610	NO FORMAL NAME
1821	ROGALAND GP
1821	BALDER FM
1897	LISTA FM
2048	SHETLAND GP
2048	JORSALFARE FM
2340	KYRRE FM
3008	CROMER KNOLL GP
3008	MIME FM
3012	VIKING GP
3012	DRAUPNE FM
3045	HEATHER FM
3215	BRENT GP
3215	TARBERT FM
3353	NESS FM
3679	TARBERT FM
3897	HEATHER FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
1407_1	pdf	0.28
1407_2	pdf	0.58

Dokumenter - eldre Søkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1407_01 WDSS General Information	pdf	0.21





1407 02 WDSS completion log	pdf	0.17
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Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1407 34 10 33 B Completion log	pdf	1.53
1407 34 10 33 B Completion report I	pdf	36.21
1407 34 10 33 B Completion report II	pdf	32.19

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
4 ARM CAL GR	1822	3419
ACBL VDL CCL GR	1800	3475
CDL CN GR	3185	3475
CHFT HP GR	3238	0
CHFT HP GR	3299	0
CHFT HP GR	3335	0
CHFT HP GR	3336	0
CHFT HP GR	3358	0
FMT HP GR	3551	3894
FMT HP GR	3551	3892
GYRO CCL GR	1690	3440
MWD - GR RES NEU POR DEN	1840	3942

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	219.0	36	220.0	0.00	LOT
INTERM.	20	459.0	26	461.0	1.43	LOT
INTERM.	13 3/8	1822.0	17 1/2	1838.0	1.53	LOT
INTERM.	9 5/8	3484.0	12 1/4	3493.0	1.70	LOT
OPEN HOLE		3942.0	8 1/2	3942.0	0.00	LOT

Boreslam





Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
1840	1.44	21.0	9.0	WATER BASED	09.05.1989
1864	1.45	18.0	5.5	OIL BASED	09.05.1989
2100	1.45	24.0	3.0	WATER BASED	03.05.1989
2982	1.58	24.0	6.5	OIL BASED	19.05.1989
3024	1.58	26.0	6.0	OIL BASED	19.05.1989
3088	1.58	22.0	7.0	OIL BASED	19.05.1989
3171	1.58	25.0	7.0	OIL BASED	19.05.1989
3200	1.58	23.0	6.5	OIL BASED	19.05.1989
3241	1.58	22.0	6.5	OIL BASED	19.05.1989
3241	1.58	26.0	7.0	OIL BASED	19.05.1989
3402	1.58	27.0	13.0	OIL BASED	24.05.1989
3415	1.58	27.0	6.5	OIL BASED	24.05.1989
3458	1.58	27.0	7.0	OIL BASED	24.05.1989
3484	1.50	25.0	6.5	OIL BASED	07.06.1989
3485	1.50	24.0	6.0	OIL BASED	08.06.1989
3493	1.58	28.0	7.0	OIL BASED	25.05.1989
3493	1.59	31.0	7.0	OIL BASED	29.05.1989
3493	1.42	20.0	6.0	OIL BASED	02.06.1989
3496	1.42	18.0	8.5	OIL BASED	05.06.1989
3588	1.42	20.0	6.5	OIL BASED	05.06.1989
3625	1.42	25.0	7.0	OIL BASED	05.06.1989
3628	1.53	24.0	9.5	OIL BASED	09.06.1989
3730	1.55	24.0	9.0	OIL BASED	12.06.1989
3860	1.57	20.0	10.0	OIL BASED	19.06.1989
3942	1.60	28.0	10.0	OIL BASED	20.06.1989

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]
1407 Formation pressure (Formasjonstrykk)	pdf	0.22

