



Generell informasjon

Brønnbane navn	34/10-14
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	GULLFAKS
Funn	34/10-1 Gullfaks
Brønn navn	34/10-14
Seismisk lokalisering	3D - 136 SP 285
Utvinningstillatelse	050
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	312-L
Boreinnretning	ROSS RIG (1)
Boredager	86
Borestart	24.12.1981
Boreslutt	19.03.1982
Frigitt dato	19.03.1984
Publiseringsdato	09.12.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	227.0
Totalt målt dybde (MD) [m RKB]	2647.0
Temperatur ved bunn av brønnbanen [°C]	98
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	HEGRE GP
Geodetisk datum	ED50
NS grader	61° 14' 0.5" N
ØV grader	2° 15' 18.87" E
NS UTM [m]	6789182.27
ØV UTM [m]	460013.70



UTM sone	31
NPDID for brønnbanen	95

Brønnhistorie

General

Well 34/10-14 was drilled on a horst block in the north-eastern part of the Gullfaks field. The objectives of the well were to prove the structural position of the middle- and early Jurassic sandstones and to establish the oil-water contact in the Brent Group in this part of the field.

Operations and results

Appraisal well 34/10-14 was spudded with the semi-submersible installation Ross Rig on 24 December 1981 and drilled to TD at 2647 m in the Triassic Hegre Group. Significant downtime (17% of total rig time) was caused by the combined effect of bad weather and the need to pull the BOP three times to detect leaks. The well was drilled with gel/lignosulphonate/seawater mud all through.

Weak shows on limestone and claystone cuttings were recorded intermittently from 1506 m in the Hordaland down to top Shetland Group at 1729 m. Sandstones of the Ness Formation were oil-bearing from 1908 m to the oil-water contact, indicated by pressure measurements and logs to be at 1972 m. This corresponds to the OWC found in the wells 34/10-3, 5 and 8. Shows on cores continued down to 2002 m.

Ten cores were recovered, nine in the interval from 1889 to 2047m KB and one core from 2210 to 2228 KB. RFT fluid sampling was performed at 1917.5 m and 1961.5 m but the fluids recovered were not representative for the reservoir fluid.

The well was permanently abandoned on 19 March 1982 as an oil appraisal well.

Testing

One drill stem test was performed in the interval 1933.5 m to 1937.5 m in the Ness Formation. The test produced 713 Sm³ oil/day through a 34/64" choke. The GOR was 67 Sm³/Sm³, separator oil gravity was 29.4 °API, and gas gravity was 0.67 (air = 1). The maximum temperature at gauge depth was 75 °C.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
310.00	2643.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerner i Sokkeldirektoratet



Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1889.0	1895.9	[m]
2	1907.8	1921.9	[m]
3	1925.0	1932.7	[m]
4	1939.5	1949.4	[m]
5	1957.0	1972.5	[m]
6	1972.5	1990.4	[m]
7	1991.0	2009.4	[m]
8	2010.0	2028.0	[m]
9	2028.0	2047.0	[m]
10	2210.0	2224.5	[m]

Total kjerneprøve lengde [m]	141.9
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1889-1893m



1893-1895m



1907-1912m



1912-1916m



1916-1921m



1921-1922m



1925-1929m



1929-1932m



1939-1944m



1944-1948m



1948-1949m



1957-1961m



1961-1966m



1966-1970m



1970-1972m



1972-1977m



1977-1981m



1981-1986m



1986-1990m



1990-1995m



1995-2000m



2000-2004m



2004-2009m



2009-2010m



2010-2014m



2014-2019m



2019-2023m



2023-2028m



2028-2032m



2032-2037m



2037-2041m



2041-2046m



2046-2047m



2210-2214m



2214-2219m



2219-2223m



2223-2224m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1465.0	[m]	DC	GEOCH
1490.0	[m]	DC	GEOCH
1505.0	[m]	DC	GEOCH



1545.0 [m]	DC	GEOCH
1615.0 [m]	DC	GEOCH
1645.0 [m]	DC	GEOCH
1655.0 [m]	DC	GEOCH
1705.0 [m]	DC	CGG
1725.0 [m]	DC	GEOCH
2156.0 [m]	SWC	RRI
2165.0 [m]	SWC	RRI
2190.0 [m]	SWC	RRI
2202.0 [m]	SWC	RRI
2209.0 [m]	SWC	RRI
2229.4 [m]	SWC	RRI
2241.0 [m]	SWC	RRI
2255.0 [m]	SWC	RRI
2269.0 [m]	SWC	RRI

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
252	NORDLAND GP
926	UTSIRA FM
953	HORDALAND GP
1554	ROGALAND GP
1554	BALDER FM
1621	LISTA FM
1729	SHETLAND GP
1908	BRENT GP
1908	NESS FM
1976	ETIVE FM
2003	RANNOCH FM
2069	BROOM FM
2080	DUNLIN GP
2080	DRAKE FM
2159	COOK FM
2203	AMUNDSEN FM
2372	STATEFJORD GP
2596	HEGRE GP



Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
95_01_WDSS_General_Information	pdf	0.18
95_02_WDSS_completion_log	pdf	0.21

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
95_34_10_14_Biostratigraphy	pdf	2.28
95_34_10_14_Completion_Report	pdf	21.54
95_34_10_14_Geco_Core_1-10	pdf	1.70
95_34_10_14_PVT_analysis	pdf	0.19
95_34_10_14_Residueell_Oljemetning_i_oljesonen	pdf	0.94
95_34_10_14_Surface_Pressures	pdf	0.61
95_34_10_14_TBP_Destillation_of_oil_DST1	pdf	0.23
95_34_10_14_Well_Test_Report	pdf	1.91

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsventil størrelse [mm]
1.0	1934	1937	12.7

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	850	81000	0.820	0.650	95

Logger





Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
C H CNL GR	1896	2000
CBL VDL GR	780	2292
CYBERDIP	1796	2645
DIR	1796	2649
DLL MSFL GR	1796	2116
FDC CNL GR	785	2644
HDT	1796	2645
ISF SON MAFL GR	242	2643
TDT GR	1900	2050
VDL LSS	1900	2150

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	313.0	36	314.0	0.00	LOT
SURF.COND.	20	785.0	26	800.0	1.80	LOT
INTERM.	13 3/8	1554.0	17 1/2	1568.0	1.85	LOT
INTERM.	9 5/8	1799.0	12 1/4	1810.0	1.93	LOT
LINER	7	2297.0	8 1/2	2300.0	2.38	LOT
OPEN HOLE		2647.0	6	2647.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
365	1.07			waterbased	
830	1.15			waterbased	
1340	1.30			waterbased	
1570	1.50			waterbased	
1810	1.72			waterbased	
1930	1.80			waterbased	
2320	1.64			waterbased	

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 brønnspar. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
95 Formation pressure (Formasjonstrykk)	pdf	0.22

