Generell informasjon

Brønnbane navn	34/10-15
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	34/10-15
Seismisk lokalisering	3D - 223 SP 265
Utvinningstillatelse	050
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	349-L
Boreinnretning	NORDRAUG
Boredager	57
Borestart	16.10.1982
Boreslutt	12.12.1982
Frigitt dato	12.12.1984
Publiseringsdato	02.12.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	164.0
Totalt målt dybde (MD) [m RKB]	2400.0
Totalt vertikalt dybde (TVD) [m RKB]	2399.0
Maks inklinasjon [°]	3.7
Temperatur ved bunn av brønnbanen [°C]	71
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	STATFJORD GP
Geodetisk datum	ED50
NS grader	61° 10' 30.06'' N
ØV grader	2° 14' 44.57'' E
NS UTM [m]	6782676.91
ØV UTM [m]	459427.04

UTM sone	31
NPDID for brønnbanen	67

Brønnhistorie

General

Well 34/10 15 was drilled as a wildcat on a horst block in the south-eastern part of the Gullfaks Field. The primary purpose of the well was to test hydrocarbon accumulations in the Jurassic and Brent sands. Secondary objectives were the Early Jurassic Statfjord sands and to test shallow gas accumulations in Pliocene sands.

Operations and results

Appraisal well 34/10-15 was spudded with the semi-submersible installation Neptuno Nordraug on 16 October 1982 and drilled to TD at 2400 m in Late Triassic sediments in the Statfjord Group. A 12 1/4” pilot hole was drilled from 250 m to 950 m to check for shallow gas. The well was situated ca 90 m south of the location for the well 34/10-10, which was abandoned due to gas flow from a gas filled sand at 428 m. The same sandlense was penetrated in the well 34/10-15 from 444-447 m. The well was drilled with spud mud down to 250 m and with gel/seawater/lignosulphonate mud from 250 m to TD.

Weak shows on cuttings, mostly on limestone, were recorded intermittently from 1220 m in the Hordaland Group to 1630 m in the Lista Formation. The Brent Group sands were not encountered. Late Triassic Statfjord Group sands were found water wet without shows. The Cook Formation sands contained residual oil.

Ten cores were cut. Cores 1 to 5 were cut from 1870 m to 1945 m in the Cook Formation with recoveries varying from 34% to 75%. Cores 6, 7, and 8 were cut from 2170 m to 2213 m in the Amundsen Formation with recoveries varying from 87% to 93%. Cores 9 and 10 were cut from 2301 m to 2323 m in the Statfjord Group with 90% and 85% recoveries, respectively. An RFT fluid sample was taken at 1875.5 m in the Cook Formation residual oil zone. The sample contained brown water and smelled oil.

The well was permanently abandoned on 12 December 1982 as a dry well with shows.

Testing

A shallow gas test was planned from the interval 444 m to 447 m. The purpose of this test was to gather information about whether the gas would flow to surface and if the sandlense could be drained. The test was cancelled due to problems in cutting the 13 3/8" casing deep enough to allow for perforations in the 20" casing in the test interval.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
250.00	2399.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1870.0	1879.5	[m]
2	1888.0	1897.0	[m]
3	1900.0	1905.7	[m]
4	1917.0	1923.0	[m]
5	1935.0	1940.7	[m]
6	2170.0	2187.0	[m]
7	2187.5	2199.8	[m]
8	2201.0	2211.4	[m]
9	2301.0	2314.8	[m]
10	2316.5	2322.0	[m]

Total kjerneprøve lengde [m]	94.9
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder

1870-1876m

1876-1879m

1888-1894m

1894-1897m

1900-1905m

1917-1923m

1923-1928m

1935-1940m

2170-2176m

2176-2182m

2182-2187m

2187-2193m

2193-2199m

2199-2199m

2201-2207m

2207-2211m

2301-2307m

2307-2313m

2313-2314m

2316-2322m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1865.0	[m]	SWC	PAS
2002.0	[m]	SWC	PAS
2043.0	[m]	SWC	PAS
2100.0	[m]	SWC	PAS

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
189	NORDLAND GP
903	UTSIRA FM
918	HORDALAND GP
1515	ROGALAND GP
1515	BALDER FM
1568	LISTA FM
1687	SHETLAND GP
1827	DUNLIN GP
1827	DRAKE FM
1870	COOK FM
2034	BURTON FM
2049	AMUNDSEN FM
2213	STATFJORD GP

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
67_01_WDSS_General_Information	pdf	0.18
67_02_WDSS_completion_log	pdf	0.20

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
67_34_10_15_ Reservoarstudie_over_Delta_Struktur	pdf	2.84
67_34_10_15_Completion_Report	pdf	23.12
67_34_10_15_Paleontological_Stratigraphical_Final_Report	pdf	4.44
67_34_10_15_Petrofysisk_Evaluering	pdf	1.69
67_34_10_15_Petrografi_av_Brentgruppen	pdf	4.85
67_34_10_15_Routine_Core_Analysis	pdf	0.91
67_34_10_15_Special_Core_Analysis	pdf	0.29
67_34_10_15_Water_Analysis	pdf	0.11
67_34_10_15_Well_Testing	pdf	0.09

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL BI	644	1737
DLL MSFL NGS	1752	1988
GEODIP	1865	2404
HDT	1737	2405
ISF SON GR MSFL	249	2400
NGS	1752	2400
VSP	253	2400

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	249.0	36	249.0	0.00	LOT
SURF.COND.	20	940.0	26	950.0	1.57	LOT
INTERM.	13 3/8	1564.0	17 1/2	1579.0	1.80	LOT
INTERM.	9 5/8	1736.0	12 1/4	1750.0	2.07	LOT
OPEN HOLE		2400.0	8 1/2	2400.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
260	1.04			waterbased	
965	1.08			waterbased	
1415	1.26			waterbased	
1510	1.42			waterbased	
1670	1.68			waterbased	
2080	1.81			waterbased	

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
1936.00	[m]
1923.00	[m]
1903.00	[m]
1895.00	[m]
1889.00	[m]
1870.00	[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]
67_Formation_pressure_(Formasjonstrykk)	pdf	0.21