



Generell informasjon

Brønnbane navn	34/7-14
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TORDIS
Funn	34/7-12 Tordis
Brønn navn	34/7-14
Seismisk lokalisering	SG 8431 ROW 183 COL. 528
Utvinningstillatelse	089
Boreoperatør	Saga Petroleum ASA
Boretillatelse	620-L
Boreinnretning	VILDKAT EXPLORER
Boredager	66
Borestart	28.09.1989
Boreslutt	02.12.1989
Frigitt dato	02.12.1991
Publiseringsdato	28.05.2003
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	TARBERT FM
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	NESS FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	148.0
Totalt målt dybde (MD) [m RKB]	2653.0
Totalt vertikalt dybde (TVD) [m RKB]	2652.0
Maks inklinasjon [°]	5.1
Temperatur ved bunn av brønnbanen [°C]	102
Eldste penetrerte alder	EARLY JURASSIC



Eldste penetrerte formasjon	BURTON FM
Geodetisk datum	ED50
NS grader	61° 15' 32.24" N
ØV grader	2° 6' 58.05" E
NS UTM [m]	6792113.82
ØV UTM [m]	452583.17
UTM sone	31
NPDID for brønnbanen	1278

Brønnhistorie



General

Well 34/7-14 was drilled in on the "B-structure", today named the Tordis Field, in the southern part of block 34/7. The Middle Jurassic Brent Group reservoir is located in tilted fault blocks dipping in a westerly direction within the southern fault segment about 1.4 km south of the well 34/7-12. The structure has a NE-SW trend and is bounded to the east and north by major faults, i.e. Northern Main Fault and Southern Main Fault with throws of 50-200 m. The primary purpose of well 34/7-14 was to further delineate and appraise the Tordis Field. The main target of the well was the sandstones in the Brent Group. Secondary objective was the sandstones of the Early Jurassic Cook Formation.

Operations and results

Appraisal well 34/7-14 was spudded with the semi-submersible installation "Vildkat Explorer" on 28 September 1989 and drilled to a total depth of 2653 m in the Early Jurassic Burton Formation. Shallow seismic indicated gas at 246 & 285 m, 344 m, 376 m, and 511 m. Measurement and logging while-drilling (MWD) verified the indication at 511 m as a thin, gas-filled sand. The upper part of the well was drilled as a 9 1/2" pilot hole without a riser and was plugged back from 511 m due to lack of reliable gas readings in the sand layer. Lost circulation occurred at 2137 m, and the well was plugged back to the 13 3/8" casing shoe. The well was drilled with gel mud (barite, bentonite, caustic soda, soda ash) down to 495 m and with KCl mud from 495 m to TD.

Down to 2189 m, the top of the Brent reservoir, the well proved mainly claystones. Exceptions to this were the sandy Utsira Formation of Miocene/Pliocene age encountered at 856 m, and sandstones within the Hordaland Group encountered in the interval 1167 - 1456 m. The Jurassic comprised the Middle Jurassic Viking and Brent Groups and the Early Jurassic Dunlin Group. & Top Brent Group was encountered at 2189 m. & The Brent Group sandstones proved oil bearing. Exact determination of an OWC was not established due to pressure depletion effects, but oil down to (ODT) 2247 m was proven by logs.

Eleven conventional cores were attempted. Nine were recovered in the interval 2194 m - 2408 m (Tarbert and Ness Formation), two in the interval 1950 m - 1959.5 m were unsuccessful, and one was recovered in the interval 1610 m - 1619 m (Hordaland Group). Two FMT segregated samples were taken on wire line at 2223 m (base Tarbert Formation: gas, oil, and water) and one at sample point 2247 (Ness Formation: gas, oil, water, mud). Three runs were made with core gun. One hundred and fifty sidewall cores were attempted, 72 were recovered. The well was permanently abandoned as an oil appraisal on 2 December 1989.

Testing

Two DST tests were carried out in the oil zone. Test no 1 (Ness Formation, 2232.3 m - 2241.3 m) produced fluid at a rate of 960 Sm³/d during the main flow period, with a GOR of 80 Sm³/Sm³. Test no 2 (Tarbert Formation, 2204.7 m - 2210,7 m) produced fluid at a rate of 1150 Sm³/d during main flow, with a GOR of 67 Sm³/Sm³.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
500.00	2652.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1610.9	1614.2	
2	1617.2	1618.7	
3	1959.0	1959.5	
4	2194.0	2222.0	[m]
5	2222.0	2249.2	[m]
6	2249.5	2275.7	[m]
7	2276.5	2300.0	[m]
8	2300.0	2325.5	[m]
9	2325.5	2353.5	[m]
10	2353.5	2380.2	[m]
11	2380.5	2408.2	[m]

Total kjerneprøve lengde [m]	212.7
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2194-2199m



2199-2204m



2204-2209m



2209-2214m



2214-2219m



2219-2222m



2222-2227m



2227-2232m



2232-2237m



2237-2242m



2242-2247m



2247-2252m



2252-2257m



2257-2262m



2262-2267m



2242-2247m

2247-2249m

2249-2254m

2254-2259m

2259-2264m



2264-2269m

2269-2274m

2274-2275m

2276-2281m

2281-2288m



2286-2291m

2291-2296m

2298-2300m

2300-2305m

2305-2310m



2310-2315m

2315-2320m

2320-2325m

2325-2326m

2325-2330m



2330-2335m

2335-2340m

2340-2345m

2345-2350m

2350-2353m



2353-2358m

2358-2363m

2363-2368m

2368-2373m

2373-2378m





2378-2380m 2380-2385m 2385-2390m 2390-2395m 2395-2400m



2400-2405m 2405-2408m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
990.0	[m]	DC	SAGA
1010.0	[m]	DC	SAGA
1020.0	[m]	DC	SAGA
1040.0	[m]	DC	SAGA
1050.0	[m]	DC	SAGA
1070.0	[m]	DC	SAGA
1080.0	[m]	DC	SAGA
1100.0	[m]	DC	SAGA
1110.0	[m]	DC	SAGA
1130.0	[m]	DC	SAGA
1140.0	[m]	DC	SAGA
1160.0	[m]	DC	SAGA
1170.0	[m]	DC	SAGA
1190.0	[m]	DC	SAGA
1200.0	[m]	DC	SAGA
1220.0	[m]	DC	SAGA
1230.0	[m]	DC	SAGA
1250.0	[m]	DC	SAGA
1260.0	[m]	DC	SAGA
1280.0	[m]	DC	SAGA
1290.0	[m]	DC	SAGA
1310.0	[m]	DC	SAGA
1320.0	[m]	DC	SAGA
1340.0	[m]	DC	SAGA
1350.0	[m]	DC	SAGA
1370.0	[m]	DC	SAGA
1380.0	[m]	DC	SAGA



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 13.5.2024 - 20:52

1400.0	[m]	DC	SAGA
1410.0	[m]	DC	SAGA
1430.0	[m]	DC	SAGA
1440.0	[m]	DC	SAGA
1460.0	[m]	DC	SAGA
1490.0	[m]	DC	SAGA
1500.0	[m]	DC	SAGA
1520.0	[m]	DC	SAGA
1530.0	[m]	DC	SAGA
1550.0	[m]	DC	SAGA
1560.0	[m]	DC	SAGA
1580.0	[m]	DC	SAGA
1590.0	[m]	DC	SAGA
1600.0	[m]	DC	SAGA
1608.0	[m]	SWC	SAGA
1630.0	[m]	DC	SAGA
1641.0	[m]	SWC	SAGA
1662.0	[m]	SWC	SAGA
1674.0	[m]	SWC	SAGA
1692.0	[m]	SWC	SAGA
1697.0	[m]	SWC	SAGA
1720.0	[m]	DC	SAGA
1732.0	[m]	SWC	SAGA
1750.0	[m]	DC	SAGA
1760.0	[m]	DC	SAGA
1790.0	[m]	DC	SAGA
1800.0	[m]	DC	SAGA
1822.0	[m]	SWC	SAGA
1830.0	[m]	DC	SAGA
1850.0	[m]	DC	SAGA
1861.0	[m]	SWC	SAGA
1865.0	[m]	DC	SAGA
1871.0	[m]	SWC	SAGA
1880.0	[m]	DC	SAGA
1895.0	[m]	DC	SAGA
1903.0	[m]	SWC	SAGA
1915.0	[m]	DC	SAGA
1920.0	[m]	DC	SAGA
1935.0	[m]	DC	SAGA
1952.0	[m]	SWC	SAGA



1965.0	[m]	DC	SAGA
1980.0	[m]	DC	SAGA
1985.0	[m]	DC	SAGA
1995.0	[m]	DC	SAGA
2010.0	[m]	DC	SAGA
2025.0	[m]	DC	SAGA
2036.0	[m]	SWC	SAGA
2055.0	[m]	DC	SAGA
2070.0	[m]	DC	SAGA
2083.0	[m]	SWC	SAGA
2100.0	[m]	DC	SAGA
2115.0	[m]	DC	SAGA
2127.0	[m]	SWC	SAGA
2130.0	[m]	DC	SAGA
2133.0	[m]	DC	SAGA
2145.0	[m]	DC	SAGA
2161.0	[m]	DC	SAGA
2180.0	[m]	SWC	SAGA
2186.0	[m]	SWC	SAGA
2189.0	[m]	SWC	SAGA
2194.0	[m]	C	SAGA
2213.5	[m]	C	SAGA
2229.0	[m]	C	SAGA
2233.0	[m]	C	SAGA
2251.0	[m]	C	SAGA
2257.5	[m]	C	SAGA
2265.0	[m]	C	SAGA
2269.0	[m]	C	SAGA
2277.5	[m]	C	SAGA
2289.0	[m]	C	SAGA
2289.6	[m]	C	SAGA
2308.5	[m]	C	SAGA
2325.5	[m]	C	SAGA
2346.0	[m]	C	SAGA
2360.0	[m]	C	SAGA
2380.5	[m]	C	SAGA
2395.0	[m]	C	SAGA
2408.0	[m]	C	SAGA
2410.0	[m]	SWC	SAGA
2424.0	[m]	DC	SAGA



2436.0	[m]	DC	SAGA
2451.0	[m]	DC	SAGA
2466.0	[m]	DC	SAGA
2481.0	[m]	DC	SAGA
2496.0	[m]	DC	SAGA
2511.0	[m]	DC	SAGA
2526.0	[m]	DC	SAGA
2541.0	[m]	DC	SAGA
2556.0	[m]	DC	SAGA
2580.0	[m]	SWC	SAGA
2586.0	[m]	DC	SAGA
2601.0	[m]	DC	SAGA
2616.0	[m]	DC	SAGA
2631.0	[m]	DC	SAGA
2652.0	[m]	DC	SAGA

Oljeprøver i Sökkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	DST1	2207.30	2216.30	OIL	19.11.1989 - 10:00	YES
DST	DST2	2179.70	2185.70	OIL	25.11.1989 - 05:30	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
173	NORDLAND GP
962	UTSIRA FM
996	HORDALAND GP
1267	NO FORMAL NAME
1314	NO FORMAL NAME
1350	NO FORMAL NAME
1412	NO FORMAL NAME
1456	NO FORMAL NAME
1653	ROGALAND GP
1653	BALDER FM
1705	LISTA FM



1836	SHETLAND GP
1836	JORSALFARE FM
2007	KYRRE FM
2173	CROMER KNOLL GP
2173	RØDBY FM
2178	MIME FM
2182	VIKING GP
2182	HEATHER FM
2189	BRENT GP
2189	TARBERT FM
2227	NESS FM
2305	ETIVE FM
2343	RANNOCH FM
2413	DUNLIN GP
2413	DRAKE FM
2543	COOK FM
2629	BURTON FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
1278	pdf	0.33

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
1278_1	pdf	1.87
1278_2	pdf	0.34

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1278_01 WDSS General Information	pdf	0.27
1278_02 WDSS completion log	pdf	0.16





Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1278 34 7 14 COMPLETION REPORT AND LOG	pdf	18.67

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2232	2241	12.7
2.0	2204	2210	14.3

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0	15.400		32.500	84
2.0	15.700		33.000	83

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0	960		0.716		
2.0	1120		0.712		

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
AC WAVETRAIN	1982	2650
CBL VDL GR	1555	1985
CBL VDL GR	1988	2651
CDL CN GR	1982	2650
CDL CN SL	2156	2377
COREGUN	0	0
COREGUN	0	0
DIFL ACL CDL GR	490	1572
DIFL ACL CDL GR	1555	2002
DIFL ACL GR	1982	2650





DIPLOG	1982	2650
DIPLOG GR	1555	1999
DLL MLL GR	2135	2377
FMT	2191	2365
MWD - GR RES DIR	173	2651
VSP	500	2600

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	234.0	36	238.0	0.00	LOT
INTERM.	20	491.0	26	495.0	1.49	LOT
INTERM.	13 3/8	1559.0	17 1/2	1610.0	1.79	LOT
INTERM.	9 5/8	1988.0	12 1/4	2010.0	1.80	LOT
LINER	7	2653.0	8 1/2	2653.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
306	1.20			WATER BASED	29.09.1989
355	1.20			WATER BASED	03.10.1989
355	1.20			WATER BASED	03.10.1989
355	1.20			WATER BASED	03.10.1989
491	1.20	13.0	15.0	WATER BASED	30.11.1989
491	1.20	13.0	4.0	WATER BASED	04.12.1989
523	1.10	14.0	12.0	WATER BASED	10.10.1989
530	1.20			WATER BASED	05.10.1989
530	1.05			WATER BASED	09.10.1989
530	1.05			WATER BASED	06.10.1989
1201	1.18	20.0	11.0	WATER BASED	10.10.1989
1575	1.30	16.0	12.0	WATER BASED	11.10.1989
1575	1.30	18.0	9.0	WATER BASED	16.10.1989
1610	1.40	18.0	12.0	WATER BASED	16.10.1989
1751	1.40	17.0	12.0	WATER BASED	16.10.1989
1950	1.63	27.0	10.0	WATER BASED	16.10.1989
1959	1.63	26.0	11.0	WATER BASED	18.10.1989
2010	1.68	31.0	10.0	WATER BASED	31.10.1989



2010	1.60	26.0	14.0	WATER BASED	27.10.1989
2032	1.68	30.0	13.0	WATER BASED	31.10.1989
2065	1.62	26.0	12.0	WATER BASED	19.10.1989
2125	1.68	32.0	15.0	WATER BASED	31.10.1989
2189	1.68	29.0	10.0	WATER BASED	02.11.1989
2189	1.68	30.0	15.0	WATER BASED	02.11.1989
2191	1.65	27.0	14.0	WATER BASED	14.11.1989
2191	1.65	26.0	13.0	WATER BASED	15.11.1989
2191	1.65	27.0	10.0	WATER BASED	16.11.1989
2191	1.65	26.0	11.0	WATER BASED	17.11.1989
2191	1.65	23.0	13.0	WATER BASED	20.11.1989
2191	1.65	24.0	13.0	WATER BASED	20.11.1989
2191	1.65	24.0	13.0	WATER BASED	20.11.1989
2191	1.65	28.0	24.0	WATER BASED	21.11.1989
2191	1.65	25.0	14.0	WATER BASED	23.11.1989
2191	1.65	23.0	14.0	WATER BASED	24.11.1989
2191	1.65	23.0	14.0	WATER BASED	27.11.1989
2191	1.65	24.0	13.0	WATER BASED	27.11.1989
2191	1.65	20.0	12.0	WATER BASED	28.11.1989
2191	1.65	22.0	11.0	WATER BASED	29.11.1989
2191	1.65	23.0	14.0	WATER BASED	27.11.1989
2191	1.65	22.0	14.0	WATER BASED	27.11.1989
2380	1.68	33.0	12.0	WATER BASED	08.11.1989
2380	1.68	33.0	10.0	WATER BASED	08.11.1989
2381	1.68	36.0	18.0	WATER BASED	08.11.1989
2408	1.68	27.0	11.0	WATER BASED	08.11.1989
2490	1.65	28.0	15.0	WATER BASED	08.11.1989
2620	1.65	27.0	16.0	WATER BASED	09.11.1989
2653	1.68	32.0	12.0	WATER BASED	10.11.1989
2653	1.65	24.0	12.0	WATER BASED	13.11.1989
2653	1.65	25.0	12.0	WATER BASED	13.11.1989
2653	1.65	27.0	10.0	WATER BASED	13.11.1989

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]
1278 Formation pressure (Formasjonstrykk)	pdf	0.22

