



Generell informasjon

Brønnbane navn	34/7-25 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TORDIS
Funn	34/7-25 S
Brønn navn	34/7-25
Seismisk lokalisering	CTM 94-INLINE 1052 & CROSSLINE 1389
Utvinningstillatelse	089
Boreoperatør	Saga Petroleum ASA
Boretillatelse	852-L
Boreinnretning	DEEPSEA BERGEN
Boredager	46
Borestart	31.07.1996
Boreslutt	14.09.1996
Frigitt dato	14.09.1998
Publiseringsdato	28.02.2008
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	INTRA DRAUPNE FM SS
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	187.0
Totalt målt dybde (MD) [m RKB]	3235.0
Totalt vertikalt dybde (TVD) [m RKB]	2596.0
Maks inklinasjon [°]	52.1
Temperatur ved bunn av brønnbanen [°C]	94
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	DRAKE FM
Geodetisk datum	ED50
NS grader	61° 15' 9.24" N



ØV grader	2° 8' 41.14" E
NS UTM [m]	6791381.74
ØV UTM [m]	454110.02
UTM sone	31
NPDID for brønnbanen	2863

Brønnhistorie

**General**

Well 34/7-25 S is located near the southern extension of the Tordis field and North of the Gullfaks field in the Tampen area in the Northern North Sea. The main objective of the well was to test the presence of sand and hydrocarbon in a Late Jurassic prospect (the Southern Triangle Upper Jurassic (STUJ) prospect). The STUJ prospect was defined between Base Cretaceous Unconformity (BCU) and a Base Draupne reflector. Secondary objectives were to obtain pressure measurements in the Brent Group, test presence of sand and hydrocarbons in the Cretaceous and in the Paleocene and prove migration route.

Operations and results

Well 34/7-25 S was spudded with the semi-submersible installation Deepsea Bergen on 31 July 1996 and drilled to TD at 3235 m (2596 m TVD) in the Early Jurassic Drake Formation. No significant problems occurred during operations. The well was drilled with spud mud down to 1271 m and with oil based mud (Anco Vert) from 1271 m to TD. No shallow gas was encountered.

Well 34/7-25 S penetrated several sands in the interval from 1250 m to 1700 m within the Hordaland Group. Weak shows were described in the interval 2275 to 2295 m in the Lista Formation. The shows had no odour and no stain in the description, due to oil based mud. The Cretaceous section had only traces of thin sandstone beds in the Shetland Group. The well successfully encountered 27.5 m TVD oil bearing sandstones belonging to the Draupne Formation, with top at 2791 m (2193 m TVD). No OWC was proven. The uppermost 2 m was cemented and had the same log response as the limestone of the Cromer Knoll Group. The next 21 m (2195 - 2216 TVD) showed excellent reservoir properties with porosity around 30% and permeability between 6 and 7 Darcy. This upper massive sandstone was bioturbated and showed a coarsening up character. The lower part of the Draupne Formation comprised sandstones interbedded with more silty parts. This part of the formation had a very high gamma response due to a high content of uranium isotopes. The sand beds in this section had oil shows but petrophysical interpretation concluded that it had no HC saturation. The top Heather Formation was penetrated at 2822 m (2220.5 m TVD). Between the sandy Draupne Formation and the shaly Heather Formation there was an unconformity of Callovian - Volgian age. Pressure measurements in the Late Jurassic showed communication with the Tordis field.

Two cores were cut at 2805 to 2860.2 m within the Viking Group with close to 100 % overall recovery. No wire line fluid samples were taken since the main zone was going to be tested.

The well was permanently abandoned on 14 September 1996 as an oil discovery.

Testing

The interval 2791 - 2816 m (2193.0 - 2214.6 m TVD) in the Intra Draupne Formation sand was perforated and tested. After the clean-up flow and build-up the well was opened for the 48 hour main flow period. The final flow rate was 1045 Sm³ oil and 102200 Sm³ gas/day through a 15.9 mm choke at a wellhead pressure of 124 bar and a GOR of 94 Sm³/m³ at separator conditions. The oil density was 0.844 g/cm³, and the gas gravity was 0.72 (air = 1). The maximum bottom hole temperature in the test was measured to 82 deg C.



Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
430.00	3235.00

Borekaks tilgjengelig for prøvetaking?	YES
--	-----

Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2805.0	2831.5	[m]
2	2832.0	2860.2	[m]

Total kjerneprøve lengde [m]	54.7
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2805-2810m



2810-2815m



2815-2810m



2820-2825m



2825-2830m



2830-2831m



2832-2837m



2837-2842m



2842-2847m



2847-2852m



2852-2857m



2857-2860m

Palynologiske preparater i Sokkeldirektoratet



Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1270.0	[m]	DC	RRI
1310.0	[m]	DC	RRI
1350.0	[m]	DC	RRI
1390.0	[m]	DC	RRI
1430.0	[m]	DC	RRI
1470.0	[m]	DC	RRI
1510.0	[m]	DC	RRI
1550.0	[m]	DC	RRI
1590.0	[m]	DC	RRI
1630.0	[m]	DC	RRI
1670.0	[m]	DC	RRI
1710.0	[m]	DC	RRI
1750.0	[m]	DC	RRI
1790.0	[m]	DC	RRI
1830.0	[m]	DC	RRI
1910.0	[m]	DC	RRI
1950.0	[m]	DC	RRI
1990.0	[m]	DC	RRI
2030.0	[m]	DC	RRI
2070.0	[m]	DC	RRI
2110.0	[m]	DC	RRI
2160.0	[m]	DC	RRI
2190.0	[m]	DC	RRI
2230.0	[m]	DC	RRI
2270.0	[m]	DC	RRI
2310.0	[m]	DC	RRI
2330.0	[m]	DC	RRI
2350.0	[m]	DC	RRI
2370.0	[m]	DC	RRI
2390.0	[m]	DC	RRI
2410.0	[m]	DC	RRI
2430.0	[m]	DC	RRI
2450.0	[m]	DC	RRI
2490.0	[m]	DC	RRI
2510.0	[m]	DC	RRI
2530.0	[m]	DC	RRI
2550.0	[m]	DC	RRI
2570.0	[m]	DC	RRI
2590.0	[m]	DC	RRI



2610.0	[m]	DC	RRI
2630.0	[m]	DC	RRI
2650.0	[m]	DC	RRI
2670.0	[m]	DC	RRI
2690.0	[m]	DC	RRI
2710.0	[m]	DC	RRI
2730.0	[m]	DC	RRI
2750.0	[m]	DC	RRI
2770.0	[m]	DC	RRI
2790.0	[m]	DC	RRI
2961.0	[m]	DC	RRI
2970.0	[m]	DC	RRI
2985.0	[m]	DC	RRI
2988.0	[m]	DC	RRI
2997.0	[m]	DC	RRI
3006.0	[m]	DC	RRI
3015.0	[m]	DC	RRI
3024.0	[m]	DC	RRI
3033.0	[m]	DC	RRI
3042.0	[m]	DC	RRI
3051.0	[m]	DC	RRI
3060.0	[m]	DC	RRI
3069.0	[m]	DC	RRI
3078.0	[m]	DC	RRI
3087.0	[m]	DC	RRI
3097.0	[m]	DC	RRI
3105.0	[m]	DC	RRI
3114.0	[m]	DC	RRI
3123.0	[m]	DC	RRI
3132.0	[m]	DC	RRI
3141.0	[m]	DC	RRI
3150.0	[m]	DC	RRI
3159.0	[m]	DC	RRI
3168.0	[m]	DC	RRI
3177.0	[m]	DC	RRI
3186.0	[m]	DC	RRI
3195.0	[m]	DC	RRI
3204.0	[m]	DC	RRI
3222.0	[m]	DC	RRI
3228.0	[m]	DC	RRI



3235.0 [m]	DC	RRI
------------	----	-----

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
210	NORDLAND GP
966	UTSIRA FM
1005	UNDIFFERENTIATED
1076	HORDALAND GP
1264	NO FORMAL NAME
1323	NO FORMAL NAME
1370	NO FORMAL NAME
1495	NO FORMAL NAME
1535	NO FORMAL NAME
1635	NO FORMAL NAME
1674	NO FORMAL NAME
1695	NO FORMAL NAME
2049	ROGALAND GP
2049	BALDER FM
2120	LISTA FM
2331	SHETLAND GP
2331	JORSALFARE FM
2634	KYRRE FM
2775	CROMER KNOLL GP
2775	RØDBY FM
2785	MIME FM
2791	VIKING GP
2791	INTRA DRAUPNE FM SS
2822	HEATHER FM
2920	BRENT GP
2920	TARBERT FM
2980	NESS FM
3086	ETIVE FM
3101	RANNOCH FM
3178	BROOM FM
3183	DUNLIN GP
3183	DRAKE FM



Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
2863_1	pdf	0.21
2863_2	pdf	1.45
2863_3	pdf	0.17

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
2863_34_7_25_S_COMPLETION_REPORT_AND_COMPLETION_LOG	pdf	26.82

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsventil størrelse [mm]
1.0	2817	2791	15.9

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0			30.000	82

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0	1039	101920	0.840	0.730	98

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
DIPL DAC ZDL GR TTRM	350	1235
DIPL MAC DSL TTRM	2232	3235
FMT QDYNE GR TTRM	2232	3235
HEXDIP GR TTRM	2232	3235
MRIL ZDL CNC GR TTRM	2232	3235





MWD DPR - DIR GR RES	258	3235
PVFT QDYNE GR TTRM	2232	3235
SWC	2805	2832
SWC	2832	2860
VELOCITY	1265	3155

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	258.0	36	260.0	0.00	LOT
SURF.COND.	18 5/8	393.0	26	394.0	1.48	LOT
INTERM.	13 3/8	1253.0	17 1/2	1255.0	1.70	LOT
INTERM.	9 5/8	2232.0	12 1/4	2233.0	0.00	LOT
LINER	7	3235.0	8 1/2	3235.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
363	1.25			SPUD MUD	
1088	1.22	20.0		KCL MUD	
1380	1.39	21.0		PSEUDO OIL BASE	
1380	1.25	24.0		KCL MUD	
1384	1.39	20.0		PSEUDO OIL BASE	
4103	1.48	33.0		PSEUDO OIL BASE	
4193	1.50	33.0		PSEUDO OIL BASE	
4690	1.54	36.0		PSEUDO OIL BASE	

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]
2863 Formation pressure (Formasjonstrykk)	pdf	0.22

