Generell informasjon

Brønnbane navn	31/2-20 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TROLL
Funn	31/2-1 (Troll Vest)
Brønn navn	31/2-20
Seismisk lokalisering	NH0102-Inline 1281 & crossline 898
Utvinningstillatelse	054
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	1045-L
Boreinnretning	POLAR PIONEER
Boredager	9
Borestart	27.11.2002
Boreslutt	08.12.2002
Frigitt dato	08.12.2004
Publiseringsdato	11.02.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	SOGNEFJORD FM
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	332.0
Totalt målt dybde (MD) [m RKB]	3400.0
Totalt vertikalt dybde (TVD) [m RKB]	1928.0
Maks inklinasjon [°]	66.5
Temperatur ved bunn av brønnbanen [°C]	72
Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	BRENT GP
Geodetisk datum	ED50

NS grader	60° 47' 59.3'' N
ØV grader	3° 26' 57.7'' E
NS UTM [m]	6740732.20
ØV UTM [m]	524457.97
UTM sone	31
NPDID for brønnbanen	4636

Brønnhistorie

General

Well 31/2-20 S was drilled from the Troll B platform as a joint Pl054 and Pl191 activity. The objective was to investigate the Hydrocarbon-potential in the "P/Q"-prospect shortly west of the Troll West oil province. The main objective was the middle Jurassic Brent Group. A structural closure in the Late Jurassic Fensfjord formation was a secondary target.

Operations and results

Exploration well 31/2-20 S was kicked off on 27 November 2002 from the 13 3/8" casing at 2447/1468 m MD/TVD RKB in production well 31/2-E-3H/AY1H/AY2H/AY3H on the Troll B platform. It was drilled to TD at 3400/1928 m MD/TVD RKB in the Brent group without significant problems. It was drilled as an 8 1/2 " hole from kick-off to TD using a KCl/polymer mud. The main results were:

The P/Q prospect was found to be dry. No hydrocarbon shows were observed in the Brent Group

The Sognefjord Formation sandstones were encountered with oil and gas according to prognosis (GOC and OWC were met at 2695 m/1545.5 m MD/TVD MSL and 2759.2 m/1572 m MD/TVD MSL respectively). No other contacts were observed.

Top Brent was penetrated 39 m deeper than expected ? basically due to higher than expected Jurassic interval velocities. A hydrocarbon fluid-inclusion study performed concludes: No fluorescent hydrocarbon fluid inclusions are observed, either in cemented fractures or in quartz overgrowth, which confirm low probability of any petroleum charging during geologic time.

The well was drilled with return to seabed from seafloor 355m to setting depth of 15 5/8" casing at 1146m. MWD was run through the whole well. In the interval 2457-3400m MD RKB an LWD-suite comprising GR, resistivity, density, neutron, and sonic logs was run. No wire line survey was run. No cores were taken. No biostratigraphic evaluation has been performed. No fluid samples were taken.

The well was permanently abandoned on 8 December. Oil and gas was encountered in the Sognefjord Formation as expected, but the exploration targets were dry.

Testing

No drill stem test was performed

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
355	NORDLAND GP
765	HORDALAND GP
2200	ROGALAND GP
2669	SHETLAND GP
2673	VIKING GP
2673	SOGNEFJORD FM
2887	FENSFJORD FM
3148	KROSSFJORD FM
3252	HEATHER FM
3365	BRENT GP

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
4636_31_2_20_S_COMPLETION_LOG	.pdf	1.17
4636_31_2_20_S_COMPLETION_REPORT	.PDF	1.26

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
LWD - GR DIR RES MPR-ECD	417	1137
LWD - GR DIR RES MPR-ECD	1096	1981
LWD - NBI GR RES DIR DEN NEU SON	2447	3203
LWD - NBI GR RES DIR DEN NEU SON	3203	3395
MWD - DIR	355	417
MWD - DIR ECD	1981	2454

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	417.0	36	417.0	0.00	LOT
SURF.COND.	18 5/8	1146.0	26	1146.0	1.40	LOT
INTERM.	13 3/8	2447.0	17 1/2	2450.0	1.43	LOT
OPEN HOLE		3400.0	8 1/2	3400.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
2400	1.25	17.0		WATER BASED	
2430	1.25	21.0		WATER BASED	
2457	1.25	15.0		WATER BASED	
2501	1.25	14.0		WATER BASED	
2788	1.25	16.0		WATER BASED	
3144	1.25	15.0		WATER BASED	
3214	1.25	16.0		WATER BASED	
3400	1.25	18.0		WATER BASED	