



Generell informasjon

Brønnbane navn	35/11-14 S
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	BYRDING
Funn	35/11-13 Byrding
Brønn navn	35/11-14
Seismisk lokalisering	Seismic survey MN-9201R05-NE inline 937 -crossline 1076
Utvinningstillatelse	090 B
Boreoperatør	Norsk Hydro Petroleum AS
Boretillatelse	1119-L
Boreinnretning	TRANSOCEAN WINNER
Boredager	107
Borestart	23.08.2006
Boreslutt	07.12.2006
Frigitt dato	07.12.2008
Publiseringsdato	18.12.2008
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	INTRA HEATHER FM SS
Avstand, boredekk - midlere havflate [m]	26.0
Vanndybde ved midlere havflate [m]	361.0
Totalt målt dybde (MD) [m RKB]	3306.0
Totalt vertikalt dybde (TVD) [m RKB]	3285.5
Maks inklinasjon [°]	16.5
Temperatur ved bunn av brønnbanen [°C]	122
Eldste penetrerte alder	LATE JURASSIC
Eldste penetrerte formasjon	HEATHER FM



Geodetisk datum	ED50
NS grader	61° 9' 2.41" N
ØV grader	3° 32' 51.76" E
NS UTM [m]	6779854.28
ØV UTM [m]	529484.24
UTM sone	31
NPDID for brønnbanen	5365

Brønnhistorie

General

Well 35/11-14 S is an appraisal well on the B-segment of the Astero discovery in PL090B. The Astero prospect is located north of the Fram West field, in the northern part of the 35/11-block. The target was Intra Heather Formation turbidite sandstones of Middle Oxfordian age derived from the Sognefjord delta in the East. The primary objectives were to test the presence and type of hydrocarbons in the Oxfordian sands, and assess reservoir quality, hydrocarbon column heights and regional pressure communication. Samples of all fluids were to be obtained. The TD criterion was to drill 100 m below base of the Intra Heather Formation reservoir section.

Operations and results

Well 35/11-14 S was spudded with the semi-submersible installation Transocean Winner on 23 August 2006 and drilled to TD at 3306 m (3285.6 m TVD RKB) in the Late Jurassic Heather Formation. After drilling into Pliocene sands at 693 m the well started to flow. The well was then displaced to 1.5 SG kill mud. It was discovered that mud motor and 26" bit had been twisted off and left in the hole. The well was cemented back to 30" casing shoe and technically side tracked from 500 m. A new 26" section was drilled to 641 m. The well was drilled as a deviated hole, but close to vertical through the reservoir section. It was drilled with spud mud down to 640 m and with Glydril (2 - 4.5% glycol) from 640 m to TD.

The well was drilled within the fault bounded dip closure, shallow on the structure. The Intra Heather Formation sands (Oxfordian turbidites) were encountered as prognosed at 3103 - 3215 m (3083 - 3195 m TVD RKB). They contained commercial hydrocarbons with a gas oil contact at 3106.5 m (3086.5 m TVD RKB), and an oil water contact (Free Water Level) at 3126.0 m (3106 m TVD RKB). Good oil shows were observed down to 3158 m.

Two cores were cut from 3110 to 3164 m. They comprised mainly sandstones with occasional thin siltstones. The reservoir was logged on wire line. MDT fluid samples were taken at three depths. Water samples were obtained at 3144 m, and at this level a formation temperature of 118 deg C was recorded. Oil samples were taken at 3120.5 m, while condensate samples were taken at 3105.5 m.

The well was permanently plugged and abandoned on 7 December 2006 as an oil and gas appraisal.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
650.00	3300.00
Borekaks tilgjengelig for prøvetaking?	YES

Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3110.0	3136.5	[m]
2	3137.0	3163.8	[m]

Total kjerneprøve lengde [m]	53.3
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1060.0	[m]	DC	FUGRO
1090.0	[m]	DC	FUGRO
1120.0	[m]	DC	FUGRO
1150.0	[m]	DC	FUGRO
1180.0	[m]	DC	FUGRO
1210.0	[m]	DC	FUGRO
1240.0	[m]	DC	FUGRO
1270.0	[m]	DC	FUGRO
1300.0	[m]	DC	FUGRO
1330.0	[m]	DC	FUGRO
1360.0	[m]	DC	FUGRO
1390.0	[m]	DC	FUGRO
1420.0	[m]	DC	FUGRO
1450.0	[m]	DC	FUGRO
1480.0	[m]	DC	FUGRO
1510.0	[m]	DC	FUGRO
1540.0	[m]	DC	FUGRO
1570.0	[m]	DC	FUGRO
1600.0	[m]	DC	FUGRO



1630.0	[m]	DC	FUGRO
1660.0	[m]	DC	FUGRO
1700.0	[m]	DC	FUGRO
1730.0	[m]	DC	FUGRO
1760.0	[m]	DC	FUGRO
1790.0	[m]	DC	FUGRO
1810.0	[m]	DC	FUGRO
1840.0	[m]	DC	FUGRO
1860.0	[m]	DC	FUGRO
1890.0	[m]	DC	FUGRO
1920.0	[m]	DC	FUGRO
1950.0	[m]	DC	FUGRO
1970.0	[m]	DC	FUGRO
1990.0	[m]	DC	FUGRO
2010.0	[m]	DC	FUGRO
2030.0	[m]	DC	FUGRO
2050.0	[m]	DC	FUGRO
2070.0	[m]	DC	FUGRO
2090.0	[m]	DC	FUGRO
2110.0	[m]	DC	FUGRO
2130.0	[m]	DC	FUGRO
2150.0	[m]	DC	FUGRO
2180.0	[m]	DC	FUGRO
2210.0	[m]	DC	FUGRO
2230.0	[m]	DC	FUGRO
2250.0	[m]	DC	FUGRO
2270.0	[m]	DC	FUGRO
2995.0	[m]	DC	FUGRO
3001.0	[m]	DC	FUGRO
3007.0	[m]	DC	FUGRO
3010.0	[m]	DC	FUGRO
3013.0	[m]	DC	FUGRO
3016.0	[m]	DC	FUGRO
3019.0	[m]	DC	FUGRO
3022.0	[m]	DC	FUGRO
3025.0	[m]	DC	FUGRO
3028.0	[m]	DC	FUGRO
3031.0	[m]	DC	FUGRO
3034.0	[m]	DC	FUGRO
3037.0	[m]	DC	FUGRO



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 14.5.2024 - 19:57

3040.0 [m]	DC	FUGRO
3043.0 [m]	DC	FUGRO
3046.0 [m]	DC	FUGRO
3049.0 [m]	DC	FUGRO
3052.0 [m]	DC	FUGRO
3055.0 [m]	DC	FUGRO
3058.0 [m]	DC	FUGRO
3061.0 [m]	DC	FUGRO
3064.0 [m]	DC	FUGRO
3067.0 [m]	DC	FUGRO
3073.0 [m]	DC	FUGRO
3079.0 [m]	DC	FUGRO
3085.0 [m]	DC	FUGRO
3091.0 [m]	DC	FUGRO
3097.0 [m]	DC	FUGRO
3103.0 [m]	DC	FUGRO
3112.0 [m]	DC	FUGRO
3112.5 [m]	DC	FUGRO
3112.9 [m]	DC	FUGRO
3113.1 [m]	DC	FUGRO
3113.4 [m]	DC	FUGRO
3124.3 [m]	DC	FUGRO
3124.3 [m]	DC	FUGRO
3124.4 [m]	DC	FUGRO
3126.2 [m]	DC	FUGRO
3126.5 [m]	DC	FUGRO
3126.5 [m]	DC	FUGRO
3135.1 [m]	DC	FUGRO
3144.3 [m]	DC	FUGRO
3144.4 [m]	DC	FUGRO
3146.4 [m]	DC	FUGRO
3146.9 [m]	DC	FUGRO
3147.0 [m]	DC	FUGRO
3148.6 [m]	DC	FUGRO
3148.7 [m]	DC	FUGRO
3148.9 [m]	DC	FUGRO
3149.3 [m]	DC	FUGRO
3149.3 [m]	DC	FUGRO
3150.4 [m]	DC	FUGRO
3150.5 [m]	DC	FUGRO



3150.5 [m]	DC	FUGRO
3152.0 [m]	DC	FUGRO
3154.3 [m]	DC	FUGRO
3154.5 [m]	DC	FUGRO
3154.6 [m]	DC	FUGRO
3154.8 [m]	DC	FUGRO
3155.5 [m]	DC	FUGRO
3156.1 [m]	DC	FUGRO
3156.4 [m]	DC	FUGRO
3156.4 [m]	DC	FUGRO
3156.5 [m]	DC	FUGRO
3156.6 [m]	DC	FUGRO
3163.0 [m]	DC	FUGRO
3163.8 [m]	DC	FUGRO
3169.0 [m]	DC	FUGRO
3175.0 [m]	DC	FUGRO
3181.0 [m]	DC	FUGRO
3187.0 [m]	DC	FUGRO
3193.0 [m]	DC	FUGRO
3199.0 [m]	DC	FUGRO
3205.0 [m]	DC	FUGRO
3211.0 [m]	DC	FUGRO
3217.0 [m]	DC	FUGRO
3223.0 [m]	DC	FUGRO
3229.0 [m]	DC	FUGRO
3235.0 [m]	DC	FUGRO
3241.0 [m]	DC	FUGRO
3244.0 [m]	DC	FUGRO
3247.0 [m]	DC	FUGRO
3250.0 [m]	DC	FUGRO
3253.0 [m]	DC	FUGRO
3256.0 [m]	DC	FUGRO
3259.0 [m]	DC	FUGRO
3265.0 [m]	DC	FUGRO
3271.0 [m]	DC	FUGRO
3277.0 [m]	DC	FUGRO
3286.0 [m]	DC	FUGRO
3292.0 [m]	DC	FUGRO
3298.0 [m]	DC	FUGRO
3301.0 [m]	DC	FUGRO



Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
387	NORDLAND GP
661	NO FORMAL NAME
744	UTSIRA FM
800	HORDALAND GP
1548	ROGALAND GP
1548	BALDER FM
1605	SELE FM
1655	LISTA FM
1751	NO FORMAL NAME
1813	NO FORMAL NAME
1880	VÅLE FM
1905	NO FORMAL NAME
1950	SHETLAND GP
1950	JORSALFARE FM
2098	KYRRE FM
2547	TRYGGVASON FM
2621	BLODØKS FM
2646	SVARTE FM
2675	CROMER KNOLL GP
2675	RØDBY FM
2705	ÅSGARD FM
2898	VIKING GP
2898	DRAUPNE FM
3031	HEATHER FM
3103	INTRA HEATHER FM SS
3215	HEATHER FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CMR CAL	2740	3240
EMS SGT DTC LEH	640	1057
MDT	3104	3250
MDT DP VIT HC	3105	3141



MWD LWD - DIR	387	468
MWD LWD - DIR GR RES APWD	468	3306
SPEA GPIT DSI HRLA PEX ECS CMR	2700	3307

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	385.0	36	387.0	0.00	LOT
SURF.COND.	20	465.0	26	468.0	0.00	LOT
INTERM.	13 3/8	1671.0	17	1679.0	1.26	LOT
INTERM.	9 5/8	2831.0	12 1/4	2833.0	1.63	LOT
OPEN HOLE		3306.0	8 1/2	3306.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
622	1.20	15.0		WATER BASED	
640	1.20	17.0		WATER BASED	
1050	1.20	15.0		WATER BASED	
1058	1.20	18.0		WATER BASED	
1193	1.26	21.0		WATER BASED	
1390	1.29	20.0		WATER BASED	
1679	1.29	17.0		WATER BASED	
1757	1.31	17.0		WATER BASED	
2400	1.31	18.0		WATER BASED	
2829	1.34	21.0		WATER BASED	