



Generell informasjon

Brønnbane navn	34/3-1 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	KNARR
Funn	34/3-1 S Knarr
Brønn navn	34/3-1
Seismisk lokalisering	inline 5174 & crossline 3090
Utvinningstillatelse	373 S
Boreoperatør	BG Norge AS
Boretillatelse	1180-L
Boreinnretning	BREDFORD DOLPHIN
Boredager	136
Borestart	28.04.2008
Boreslutt	10.09.2008
Frigitt dato	10.09.2010
Publiseringsdato	23.12.2010
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	EARLY JURASSIC
1. nivå med hydrokarboner, formasjon.	COOK FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	410.0
Totalt målt dybde (MD) [m RKB]	4221.0
Totalt vertikalt dybde (TVD) [m RKB]	4081.0
Maks inklinasjon [°]	24.3
Temperatur ved bunn av brønnbanen [°C]	142
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	STATFJORD GP
Geodetisk datum	ED50



NS grader	61° 48' 46.49" N
ØV grader	2° 46' 47.16" E
NS UTM [m]	6853522.80
ØV UTM [m]	488393.54
UTM sone	31
NPDID for brønnbanen	5811

Brønnhistorie

General

The Jordbær well 34/3-1 S was drilled on the north eastern fringes of Tampen Spur on the Norwegian Continental Shelf. It was planned as a deviated exploration well with a dry hole TD case at 4228 m /4089 m TVD in the Jordbær Central target formation. Due to possible high pressure and temperature within the reservoir, the 8 1/2" section was planned to be drilled according to HPHT procedures.

Operations and results

Wildcat well 34/3-1 S was spudded with the semi-submersible installation Bredford Dolphin on 28 April 2008 and drilled to TD at 4221 m (4081.6 m TVD) in Late Triassic sediments of the Statfjord Formation. The well was drilled without significant technical problems down to TD in the 17 1/2" section at 2196 m. Due to wellbore instability and consequential stuck pipe at this point, the well was technically sidetracked (34/3-1 ST2) below the 20" casing shoe. The well was drilled with seawater and sweeps down to 968 m, with Performadril water based mud with GEM GP from 968 m to 2210 m, and with XP-07 oil based mud from 2210 m to TD.

The well drilled from the Early Jurassic Cromer Knoll Group directly into the Early Jurassic Dunlin Group at 3774 m. The Middle to Late Jurassic successions were missing in well position. The well found hydrocarbons in the Early Jurassic Cook Formation. No OWC was seen. After reaching TD a 7" liner was installed and a DST operation performed in the Cook formation, prior to plugging and sidetracking the well to start drilling of well 34/3-1A.

Two cores were cut in the Cook Formation. Core 1 was cut from 3868m to 3895m, with 23 m of core being recovered. A second core assembly was run and coring continued from 3895m to 3932m. No wire line fluid samples were taken.

The well was permanently abandoned on 10 September 2008 as an oil discovery.

Testing

One DST was performed in the upper Cook Formation at 3866.0 - 3950.5 m (3750.2 - 3832.5 m TVD). The test produced 42789 Sm³ gas and 1239 Sm³ oil /day through a 24/64" choke. The GOR was 35 Sm³/Sm³, the oil density was 0.798 g/cm³, and the gas gravity was 0.795 (air=1) with 2 ppm H₂S and 2% CO₂. The maximum temperature recorded in the final flow was 134 deg C.

Borekaks i Sokkeldirektoratet



Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
980.00	4221.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3868.0	3891.3	[m]
2	3895.0	3932.3	[m]

Total kjerneprøve lengde [m]	60.6
Kjerner tilgjengelig for prøvetaking?	YES

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST		0.00	0.00	OIL		YES
MDT		3950.48	3866.00	OIL		YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
436	NORDLAND GP
1421	UTSIRA FM
1464	NO FORMAL NAME
1494	HORDALAND GP
2002	ROGALAND GP
2002	BALDER FM
2030	SELE FM
2050	LISTA FM
2141	SHETLAND GP
2141	JORSALFARE FM
2314	KYRRE FM



3429	TRYGGVASON FM
3769	CROMER KNOLL GP
3769	MIME FM
3777	DUNLIN GP
3777	DRAKE FM
3866	COOK FM
3958	BURTON FM
4016	AMUNDSEN FM
4125	STATEJORD GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
5811	pdf	0.60

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
5811 01 34 3 1S gch transfer 1	txt	0.00
5811 01 34 3 1S gch transfer 2	txt	0.00
5811 02 34 3 1S gch results 1	txt	0.11
5811 02 34 3 1S gch results 2	txt	0.04

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3866	3950	9.5

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				134





Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyingde rel. luft	GOR [m3/m3]
1.0	1239	42789	0.798	0.795	35

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
EWR P4 PWD DGR DDS BAT GP	2210	3780
LWD - DI	435	505
LWD - DI	505	968
LWD - DI GR RES PWD	435	966
PWD AGR EWR BAT DI	968	972
PWD AGR EWR DI	961	2210

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	501.0	36	501.0	0.00	LOT
SURF.COND.	20	961.0	26	968.0	1.70	LOT
INTERM.	13 3/8	2203.0	17 1/2	2210.0	1.80	LOT
INTERM.	9 5/8	3769.0	12 1/4	3777.0	2.04	LOT
LINER	7	4216.0	8 1/2	4221.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
505	1.03			Bentonite Spud Mud	
548	1.03			Bentonite Spud Mud	
874	1.04			Bentonite Spud Mud	
911	1.50	33.0		PERFORMADRIL	
920	1.28	23.0		PERFORMADRIL	
940	1.35	28.0		PERFORMADRIL	
961	1.35	25.0		PERFORMADRIL	



966	1.03			Bentonite Spud Mud	
1153	1.35	25.0		PERFORMADRIL	
1412	1.37	35.0		PERFORMADRIL	
1555	1.37	36.0		PERFORMADRIL	
1913	1.50	38.0		PERFORMADRIL	
1984	1.37	32.0		PERFORMADRIL	
2063	1.50	45.0		PERFORMADRIL	
2128	1.39	39.0		PERFORMADRIL	
2150	1.70	25.0		XP-07	
2187	1.70	30.0		XP-07	
2196	1.50	48.0		PERFORMADRIL	
2210	1.41	42.0		PERFORMADRIL	
2213	1.41	16.0		XP-07	
3090	1.45	20.0		XP-07	
3777	1.70	31.0		XP-07	
3800	1.87	38.0		XP-07	
3895	1.87	36.0		XP-07	
3932	1.87	35.0		XP-07	
3968	1.87	34.0		XP-07	
4221	1.87	35.0		XP-07	

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
3920.08	[m]
3919.18	[m]
3912.68	[m]
3901.70	[m]
3901.40	[m]
3889.35	[m]
3881.70	[m]
3875.68	[m]
3869.67	[m]
3930.11	[m]