



Generell informasjon

Brønnbane navn	35/3-7 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	35/3-7 S
Brønn navn	35/3-7
Seismisk lokalisering	survey GP3DR07.inline 370 & crossline 1781
Utvinningstillatelse	270
Boreoperatør	VNG Norge (Operations) AS
Boretillatelse	1260-L
Boreinnretning	BREDFORD DOLPHIN
Boredager	96
Borestart	28.06.2009
Boreslutt	01.10.2009
Frigitt dato	01.10.2011
Publiseringsdato	01.10.2011
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	EARLY CRETACEOUS
1. nivå med hydrokarboner, formasjon.	AGAT FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	257.0
Totalt målt dybde (MD) [m RKB]	4051.0
Totalt vertikalt dybde (TVD) [m RKB]	3971.0
Maks inklinasjon [°]	25
Temperatur ved bunn av brønnbanen [°C]	124
Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	HEATHER FM
Geodetisk datum	ED50



NS grader	61° 50' 7.24" N
ØV grader	3° 49' 31.83" E
NS UTM [m]	6856278.07
ØV UTM [m]	543472.41
UTM sone	31
NPDID for brønnbanen	6154

Brønnhistorie

**General**

Well 35/3-7 S was drilled on the Cyclops prospect close to the Agat Discovery on the Måløy Slope in the Northern North Sea. The objective was to prove hydrocarbons in the Agat Formation (Agat 70 and Agat 80 sandstone units).

Operations and results

Wildcat well 35/3-7 S was spudded with the semi-submersible installation Bredford Dolphin on 28 June 2009 and drilled to TD at 4051 m in the Late Jurassic Heather Formation. A 9 5/8" pilot hole was drilled from 550 m down to 836 m. A water flow incident happened at 745 m. This was expected from previous wells in the area and a Riserless Mud Recovery system (RMR) was utilized to use weighted mud from seabed. By this the water flow was taken care of in a controlled manner. When setting the 9 5/8" liner the liner was lost in the well, but it was finally cemented and successfully tested 2.0 sg EMW. Due to a stuck pipe incident on a wiper trip between wire line logging runs a technical sidetrack had to be drilled to fulfil the formation evaluation program. The sidetrack was kicked off at 3248 m, below the 9 5/8" casing shoe, and reached TD at 3777 m, ca 110 m south of the primary well bore. The well took 95.8 days vs. 61.2 days planned. The additional days were mainly caused by the lost 9 5/8" liner, the stuck pipe incident including sidetrack and 10.2 days waiting on weather before pulling anchors. The entire main well bore was drilled with KCI/GEM water based mud (WBM) and the sidetrack was drilled with Performadril WBM.

The combined results of the main bore and the sidetrack was a gas discovery in the Agat formation in the Lower Cretaceous as proven by pressure data and gas samples. The pressure data combined define a GWC at 3652 m (3573 m TVD RKB, 3548 m TVD MSL) in main bore. The sidetrack hit the reservoir below the GWC. Moderate visible oil shows were primarily related to the core chips from the gas-bearing reservoir in the well 35/3-7 S. Weak oil shows on cuttings persisted below the GWC at 3652.8 m, throughout the Agat 70 Unit and down to top Agat 60 unit at 3738 m. Otherwise, weak oils shows were recorded above the reservoir in the Agat 110 unit at 3432 to 3443 m, and below the reservoir in the Agat 50 unit at 3790 to 3795 m and the Åsgard Formation at 3981 to 4003 m.

In the well 35/3-7 S, two cores were drilled out within the members Agat 80 and top of Agat 70. No core was taken in the sidetrack. The MDT tool was run to take pressure and fluid samples. In the main well bore 14 stable pressure points over the Agat 70-780 unit and a water sample from 3713 m were obtained. In the sidetrack an MDT water and mud filtrate was recovered in a sample from 3662 m. After that a dual packer mini-DST was carried out and gas samples were taken from 3646.9 m, while samples from 3646.8 and 3675.3 m only retrieved mud filtrate.

Preliminary estimates indicate that the size of the discovery in 35/3-7 S, together with previously proven gas discoveries in the licence (35/3-2 and 35/3-4, collectively called Agat, proven in 1980), is between three and eight billion standard cubic metres of recoverable gas.

The well was permanently abandoned on 1 October 2009 as a gas discovery.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
560.00	4051.70

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3620.0	3643.0	[m]
2	3643.0	3671.0	[m]

Total kjerneprøve lengde [m]	51.0
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
282	NORDLAND GP
655	HORDALAND GP
655	SKADE FM
821	NO FORMAL NAME
909	GRID FM
1038	NO FORMAL NAME
1232	ROGALAND GP
1232	BALDER FM
1273	SELE FM
1300	LISTA FM
1420	VÅLE FM
1520	SHETLAND GP
1520	JORSALFARE FM
1643	KYRRE FM
2847	TRYGGVASON FM
3234	BLODØKS FM
3237	SVARTE FM
3305	CROMER KNOLL GP



3305	RØDBY FM
3596	AGAT FM
3998	ÅSGARD FM
4029	VIKING GP
4029	HEATHER FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
6154_01_35_3_7S_gch_transfer_1	txt	0.00
6154_02_35_3_7S_gch_results_1	txt	0.00

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CMR HRLA PEX ECS	3219	4049
FMI DSI HNGS	3212	4042
MDT	3614	3904
MDT CMR	3596	3747
MDT SAMPLE	3713	3800
MWD - DGR EWR	277	838
MWD - DGR EWR QBAT	792	3224
MWD - DGR EWR QBAT LAD CTN GEOTA	3211	4049

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	435.0	36	440.0	0.00	LOT
SURF.COND.	20	836.0	24	842.0	1.47	LOT
PILOT HOLE		842.0	9 7/8	842.0	0.00	LOT
INTERM.	13 3/8	1520.0	17 1/2	1526.0	1.76	LOT
INTERM.	9 5/8	3248.0	12 1/4	3250.0	2.00	LOT
OPEN HOLE		4051.0	8 1/2	4051.0	0.00	LOT

Boreslam





Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 9.5.2024 - 23:50

Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	Fløytgrense [Pa]	Type slam	Dato, måling
335	1.03			Bentonite Spud mud	
438	1.27	45.0		KCl/GEM	
528	1.03			Bentonite Spud mud	
829	1.24	43.0		KCl/GEM	
922	1.22	32.0		KCl/GEM	
1250	1.30	43.0		KCl/GEM	
1500	1.35	27.0		KCl/GEM	
2011	1.30	46.0		KCl/GEM	
2412	1.35	28.0		KCl/GEM	
2732	1.30	37.0		KCl/GEM	
3164	1.37	48.0		KCl/GEM	
3246	1.39	53.0		KCl/GEM	
3305	1.30	31.0		Performadril	
3738	1.39	29.0		KCl/GEM	
3769	1.30	37.0		Performadril	
4051	1.39	43.0		KCl/GEM	