



Generell informasjon

Brønnbane navn	6406/12-3 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Felt	FENJA
Funn	6406/12-3 S Fenja
Brønn navn	6406/12-3
Seismisk lokalisering	seismic data set MC3D-HT2007-08
Utvinningstillatelse	586
Boreoperatør	VNG Norge AS
Boretillatelse	1500-L
Boreinnretning	TRANSOCEAN ARCTIC
Boredager	93
Borestart	21.01.2014
Boreslutt	26.04.2014
Frigitt dato	26.04.2016
Publiseringsdato	26.04.2016
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	INTRA MELKE FM SS
Avstand, boredekk - midlere havflate [m]	24.0
Vanndybde ved midlere havflate [m]	324.0
Totalt målt dybde (MD) [m RKB]	4001.0
Totalt vertikalt dybde (TVD) [m RKB]	3762.0
Maks inklinasjon [°]	33
Eldste penetrerte alder	LATE JURASSIC
Eldste penetrerte formasjon	MELKE FM
Geodetisk datum	ED50
NS grader	64° 1' 52.32" N
ØV grader	6° 45' 17.58" E



NS UTM [m]	7102598.45
ØV UTM [m]	390320.66
UTM sone	32
NPDID for brønnbanen	7322

Brønnhistorie

General

The 6406/12-3 S, 6406/12-3 A, and 6406/12-3 B wellbores were drilled in concert on the Pil and Bue prospects in the southern end of the Halten Terrace in the Norwegian Sea. The 6406/12-3 S was the first well to be drilled. It was designed to test a seismic data anomaly and a flat spot recognised in the Pil prospect, at Late Jurassic level.

Operations and results

Wildcat well 6406/12-3 S was spudded with the semi-submersible installation Transocean Arctic on 21 January 2014 and drilled to TD at 4001 m (3762 m TVD) in the Late Jurassic Melke Formation. A 9 7/8" pilot hole was drilled from 418 to 1246 to check for shallow gas. No shallow gas was seen. Due to deteriorating hole conditions in the 8 1/2" section it was decided to set 7" liner early, at 3839 m, and continue the well as an unplanned 6" hole to TD. Otherwise, no significant problem was encountered in the operations. The well was drilled with seawater and sweeps down to 1246 m and with XP-07 oil based mud from 1246 m to TD.

Contrary to prognosis, there were no Rogn Formation sandstones in the well. Instead, the well encountered Intra Melke Formation sandstones at 3514 m (3276.5 m TVD). These sandstones had good to excellent reservoir quality and contained a 227 m TVD gross hydrocarbon column. The hydrocarbons in the reservoir zone consisted of a 93 TVD m thick gas cap overlying a 134 TVD m oil leg in. The GOC is located at 3608 m (3370 m TVD) and the OWC at 3742 m (3504 m TVD). Pressure data indicated a single gas gradient over an oil leg. Below the OWC, the well penetrated a further thick high net to gross reservoir package of Intra Melke sandstones with a continuous water gradient.

Five 54 m consecutive cores were cut in the interval 3524 to 3732 m with 100% overall recovery. RCX fluid samples were taken at 3579.1 m (gas), 3620.3 m (oil), 3641.7 m (oil) and 3758.5 m (water).

The well was permanently abandoned on 26 April 2014 as an oil and gas discovery.

Testing

One Drill Stem Test was conducted from perforations in the interval 3637.3 to 3724.5 m. The test produced oil at a rate of 1017 Sm³/day through a 56/64" choke. The GOR was 160 Sm³/Sm³ and the measured oil density was 0.850g/cm³ (36 °API).

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1250.00	3999.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3524.0	3578.2	[m]
2	3578.0	3632.3	[m]
3	3632.3	3669.3	[m]
4	3669.3	3724.3	[m]
5	3724.3	3733.6	[m]

Total kjerneprøve lengde [m]	209.7
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
348	NORDLAND GP
348	NAUST FM
1091	KAI FM
1230	HORDALAND GP
1230	BRYGGE FM
1920	ROGALAND GP
1920	TARE FM
2031	TANG FM
2235	SHETLAND GP
2235	SPRINGAR FM
2318	NISE FM
2573	KVITNOS FM
3312	CROMER KNOLL GP
3312	LANGE FM
3505	LYR FM
3514	VIKING GP
3514	INTRA MELKE FM SS
3912	MELKE FM

Borestrengtester (DST)



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 11.5.2024 - 10:39

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3637	3725	22.2

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

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	1017		0.845		160

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
LWD - GR RES DEN PWD DIR NPOR SO	3450	3839
LWD - GR RES PWD DEN POR SON	2260	3450
LWD - GR RES PWD DIR	1	418
LWD - GR RES PWD DIR TT	3839	4001
MREX	3500	3820
MREX	3838	3965
PS	3517	3777
PS	3841	3900
SBT	3296	3425
SLAM	348	3820
SLAM	3838	3900
SWC	3486	3507
VSP	1155	3990

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	414.7	36	418.0	0.00	
SURF.COND.	20	1238.6	26	1246.0	1.70	FIT



INTERM.	13 3/8	2265.2	17 1/2	2271.0	1.87	FIT
PROD.	9 5/8	3442.4	12 1/4	3450.0	1.98	LOT
LINER	7	3838.0	8 1/2	3839.0	0.00	
OPEN HOLE		4001.0	6	4001.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
418	1.34	14.0		KCL Polymer displacement mud	
454	1.05	18.0		High Viscosity Bentonite Mud	
460	1.34	14.0		KCL Polymer displacement mud	
484	1.05	18.0		High Viscosity Bentonite Mud	
916	1.34	14.0		KCL Polymer displacement mud	
964	1.05	18.0		High Viscosity Bentonite Mud	
980	1.34	14.0		KCL Polymer displacement mud	
985	1.63	53.0		Yellow XP-07	
1050	1.05	18.0		High Viscosity Bentonite Mud	
1180	1.49	30.0		Yellow XP-07	
1246	1.46	29.0		YELLOW XP-07 LOW ECD	
1246	1.02			KCL Polymer displacement mud	
1246	1.46	29.0		YELLOW XP-07 LOW ECD	
1252	1.49	18.0		Yellow XP-07	
1280	1.63	53.0		Yellow XP-07	
2195	1.61	40.0		YELLOW XP-07 LOW ECD	
2379	1.61	42.0		XP O71.62	
3176	1.65	39.0		Yellow XP-07	
3233	1.65	40.0		YELLOW XP-07 LOW ECD	
3450	1.73	45.0		XP O7	
3450	1.65	36.0		YELLOW XP-07 LOW ECD	



3506	1.73	41.0		YELLOW XP-07 LOW ECD	
3632	1.73	40.0		XP O7	
3738	1.65	36.0		Yellow XP-07	
3738	1.34			CaBr Brine	
3765	1.73	41.0		XP-07	
3839	1.61	27.0		YELLOW XP-07 LOW ECD	
3839	1.73	41.0		YELLOW XP-07 LOW ECD	
4001	1.61	30.0		Yellow XP-07	