



Generell informasjon

Brønnbane navn	2/4-21 A
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	FENRIS
Funn	2/4-21 Fenris
Brønn navn	2/4-21
Seismisk lokalisering	VGCNSO5R07NH-inline 7862 & trace 18770
Utvinningstillatelse	146
Boreoperatør	Statoil Petroleum AS
Boretillatelse	1407-L
Boreinnretning	MÆRSK GALLANT
Boredager	55
Borestart	25.05.2012
Boreslutt	24.07.2012
Frigitt dato	24.07.2014
Publiseringsdato	24.07.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	GAS/CONDENSATE
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	FARSUND FM
Avstand, boredekk - midlere havflate [m]	48.1
Vanndybde ved midlere havflate [m]	67.4
Totalt målt dybde (MD) [m RKB]	5573.0
Totalt vertikalt dybde (TVD) [m RKB]	5285.0
Maks inklinasjon [°]	59.8
Eldste penetrerte alder	LATE JURASSIC
Eldste penetrerte formasjon	FARSUND FM
Geodetisk datum	ED50
NS grader	56° 42' 0.81" N



ØV grader	3° 8' 34.31" E
NS UTM [m]	6284166.46
ØV UTM [m]	508748.77
UTM sone	31
NPDID for brønnbanen	6933

Brønnhistorie

General

Well 2/4-21 A is a sidetrack to well 2/4-21 on the King Lear prospect in the Central Graben of the Norwegian North Sea, approximately 20 km north of the Ekofisk Field. The objective of the sidetrack 2/4-21 A was to prove the gas-water contact and prove reservoir distribution.

Operations and results

Well 2/4-21 A was kicked off below the 9 5/8" liner shoe, at 4649 m in the primary well bore on 25 May 2012. It was drilled with the jack-up installation Mærsk Gallant to TD at 5573 m (5285 m TVD) in the Late Jurassic Farsund Formation. Operations proceeded with few problems, but the sidetrack was terminated i above planned TD due to differential sticking in the Farsund Formation. The well was drilled with oil based XP07-HPHT mud from kick-off to TD.

Sidetrack 2/4-21 A penetrated top Mandal Formation at 4769 m (4768 m TVD) and top Farsund Formation at 4797 m (4796 m TVD). The main intra-Farsund Formation sandstone was penetrated at 5445 m (5214 m TVD). The sidetrack confirmed condensate with a gas-down-to contact at 5497 m (5241 m TVD), ca 70 m TVD deeper than in 2/4-21. The pressure surveys in well 2/4-21 A confirmed the gradients and the pressure depletion in the main sandstones found in well 2/4-21.

A reduced data acquisition programme was carried out. All logs except MDT sampling and GR were run on LWD. No coring was carried out. MDT oil and gas samples were taken at 5472 m and 5489 m. The samples had 40 - 52% mud filtrate contamination. PVT analyses showed a GOR in the range 900 to 1000 Sm³/Sm³.

The well was permanently abandoned on 24 July 2012 as a gas-condensate discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
4652.00	5573.00

Borekaks tilgjengelig for prøvetaking?	YES
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Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
MDT		0.00	5471.00	CONDE NSATE	01.07.2012 - 00:00	YES
MDT		0.00	5489.00	CONDE NSATE	01.07.2012 - 00:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
115	NORDLAND GP
510	UTSIRA FM
1823	HORDALAND GP
3168	ROGALAND GP
3168	BALDER FM
3192	SELE FM
3262	LISTA FM
3354	VÅLE FM
3382	EKOFISK FM
3505	SHETLAND GP
3505	TOR FM
3977	HOD FM
4519	BLODØKS FM
4520	HIDRA FM
4540	CROMER KNOLL GP
4540	RØDBY FM
4560	TUXEN FM
4605	ÅSGARD FM
4769	TYNE GP
4769	MANDAL FM
4797	FARSUND FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MDT GR	4638	5560



MWD - ABG GM EMRP4 PWD ALD CTN Q	5076	5573
MWD - GEO GM EWRP4 PWD DIR	5471	5565
MWD - GM EWR P4 PWD CTN ALD GEO	4698	4722
MWD - GM EWR P4 PWD DIR	4649	4698
MWD - GM EWR P4 PWD GT DIR	4722	4938
MWD - GM PWD DIR	4938	5076

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
OPEN HOLE		4649.0	8 1/2	5573.0	2.27	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
650	1.60	19.0		OBM-Low ECD-HTHP	
2500	1.78	34.0		OBM-Low ECD-HTHP	
3985	2.08	79.0		OBM-Low ECD-HTHP	
4652	2.08	77.0		OBM-Low ECD-HTHP	
4695	2.08	70.0		OBM-Low ECD-HTHP	
4723	2.08	72.0		OBM-Low ECD-HTHP	
4787	2.08	66.0		OBM-Low ECD-HTHP	
4937	2.08	67.0		OBM-Low ECD-HTHP	
5011	2.08	66.0		OBM-Low ECD-HTHP	
5076	2.08	64.0		OBM-Low ECD-HTHP	
5285	2.08	65.0		OBM-Low ECD-HTHP	
5573	2.08	64.0		OBM-Low ECD-HTHP	

