



Generell informasjon

Brønnbane navn	6407/6-5
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Felt	MIKKEL
Funn	6407/6-3 Mikkel
Brønn navn	6407/6-5
Seismisk lokalisering	INLINE 1656-XLINE 1726 ST 98M10
Utvinningstillatelse	092
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	967-L
Boreinnretning	BYFORD DOLPHIN
Boredager	43
Borestart	15.11.1999
Boreslutt	27.12.1999
Frigitt dato	27.12.2001
Publiseringsdato	18.12.2002
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	FANGST GP
2. nivå med hydrokarboner, alder	EARLY JURASSIC
2. nivå med hydrokarboner, formasjon	TOFTE FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	225.0
Totalt målt dybde (MD) [m RKB]	2759.0
Totalt vertikalt dybde (TVD) [m RKB]	2757.5
Maks inklinasjon [°]	5.1
Temperatur ved bunn av brønnbanen [°C]	111
Eldste penetrerte alder	EARLY JURASSIC



Eldste penetrerte formasjon	TILJE FM
Geodetisk datum	ED50
NS grader	64° 38' 34.79" N
ØV grader	7° 40' 3.87" E
NS UTM [m]	7169515.60
ØV UTM [m]	436338.31
UTM sone	32
NPDID for brønnbanen	3921

Brønnhistorie

General

The main objective of well 6407/6-5 was to appraise hydrocarbons in the Fangst Group and to enhance the understanding of the hydrocarbon characteristics, contact and distribution within the Mikkell structure. Block 6407/6 is situated in the fault zone separating the Trøndelag Platform and the Halten Terrace. The fault zone where the structural element Mikkell is situated is called the Bremstein Fault Complex. Secondary targets were to investigate the degree of communication with the gas proven in well 6407/6-3, and to investigate the presence of hydrocarbons in the Tofte and Tilje Formations of the Båt Group.

Operations and results

Appraisal well 6407/6-5 was spudded with the semi-submersible installation "Byford Dolphin" on 15 November 1999 and drilled without major problems to a total depth of 2759 m in the Early Jurassic Tilje Formation. The well was drilled with seawater and bentonite down to 423 m, with KCl/PAC mud from 423 m to 1202 m, and with oil based mud ("Versavert") from 1202 m to TD. Oil and gas were encountered in the Fangst Group. The GOC was defined at 2543 m TVD MSL and an OWC was found at 2563 m TVD MSL, based on pressure gradients. This coincided with the hydrocarbon contacts proven in well 6407/6-3. MDT sampling gave gas samples from the Garn Formation (2382 m), oil from the Tofte Formation (2581 m), and water from the Tofte Formation (2626 m). Two cores were cut in the Ile, Ror, and Tofte Formations in the interval 2490 m to 2598 m. Recovery was 100 %. The well was permanently abandoned as a gas appraisal well on 27 December 1999.

Testing

No drill stem test was performed

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
600.00	2760.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sökkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2490.0	2544.8	[m]
2	2545.0	2597.5	[m]

Total kjerneprøve lengde [m]	107.3
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2490-2495m



2495-2500m



2500-2505m



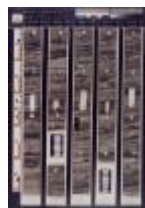
2505-2510m



2510-2525m



2515-2520m



2520-2525m



2525-2530m



2530-2535m



2535-2540m



2540-2544m



2545-2550m



2555-2560m



2560-2565m



2565-2570m



2570-2575m



2575-2580m



2580-2585m



2585-2590m



2590-2595m



2595-2598m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1200.0	[m]	DC	ICHRON
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1220.0	[m]	DC	ICHRON
1240.0	[m]	DC	ICHRON
1250.0	[m]	DC	ICHRON
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Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 21:07

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Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
250	NORDLAND GP
250	NAUST FM
1161	KAI FM
1362	HORDALAND GP
1362	BRYGGE FM
1861	ROGALAND GP



1861	TARE FM
1924	TANG FM
2023	SHETLAND GP
2343	CROMER KNOLL GP
2359	VIKING GP
2359	SPEKK FM
2377	MELKE FM
2381	FANGST GP
2381	GARN FM
2444	NOT FM
2485	ILE FM
2558	BÅT GP
2558	ROR FM
2581	TOFTE FM
2628	ROR FM
2661	TOFTE FM
2672	ROR FM
2709	TILJE FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
3921	pdf	0.37

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
3921_1	pdf	1.94
3921_2	pdf	1.79
3921_3	pdf	0.39

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
3921_6407_6_5_COMPLETION_LOG	.pdf	2.41
3921_6407_6_5_COMPLETION_REPORT	.pdf	41.92





Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
LWD	2350	2759
MDT GR	2383	2629
MWD	314	2759
PEX AIT DSI GR	1193	2393
VSP	1000	2629

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	310.0	36	311.0	0.00	LOT
INTERM.	13 3/8	421.0	17 1/2	422.0	1.28	LOT
INTERM.	9 5/8	1193.0	12 1/4	1193.0	1.63	LOT
OPEN HOLE		2759.0	8 1/2	2759.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
423	1.25	38.0		BENTONITE/FW	
426	1.20	15.0		CMC/BENTONITE	
520	1.22	11.0		KCL/PAC/XANVIS	
548	1.20			DUMMY	
1203	1.22	12.0		KCL/PAC/XANVIS	
1206	1.51	26.0		KCL/PAC/XANVIS	
1850	1.56	32.0		VERSAVERT	
2315	1.56	32.0		VERSAVERT	
2490	1.56	27.0		VERSAVERT	
2545	1.56	30.0		VERSAVERT	
2599	1.56	35.0		VERSAVERT	
2614	1.56	31.0		VERSAVERT	
2759	1.56	37.0		VERSAVERT	



Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
3921 Formation pressure (Formasjonstrykk)	pdf	0.27

