



Generell informasjon

Brønnbane navn	16/1-5 A
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	16/1-5
Seismisk lokalisering	INLINR 470 + RANDOMLINE + X-LINE 1349
Utvinningstillatelse	167
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	945-L
Boreinnretning	BYFORD DOLPHIN
Boredager	16
Borestart	21.11.1998
Boreslutt	06.12.1998
Frigitt dato	06.12.2000
Publiseringsdato	15.11.2001
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	105.0
Totalt målt dybde (MD) [m RKB]	2150.0
Totalt vertikalt dybde (TVD) [m RKB]	2029.8
Maks inklinasjon [°]	39
Eldste penetrerte alder	LATE JURASSIC
Eldste penetrerte formasjon	INTRA HEATHER FM SS
Geodetisk datum	ED50
NS grader	58° 47' 53.52" N
ØV grader	2° 9' 12.14" E
NS UTM [m]	6518040.86
ØV UTM [m]	451073.37
UTM sone	31
NPDID for brønnbanen	3626



Brønnhistorie

General

The objectives of well 16/1-5 were to prove hydrocarbon reserves in the Upper Jurassic (Oxfordian - Ryazanian) shallow marine sandstone as well as in the Middle Jurassic shallow to marginal marine sandstone. The well was also planned to provide a good stratigraphic tie to the Paleocene interval and test the possibility for Paleocene sands. A high amplitude at around 2070 ms TWT was also meant to be clarified with this well. The objective of the 16/1-5A sidetrack was to prove hydrocarbon reserves in an Upper Jurassic shallow marine sandstone, up-dip from the hydrocarbon shows that were recorded in well 16/1-5.

Operations and results

The main well, 16/1-5, was spudded and drilled with a water based mud to a total depth of 2460 m RKB. Both the Upper Jurassic sandstone, the Heather Formation "Sandstone Unit", and the Middle Jurassic Hugin Formation were encountered. Both sandstone sequences were water bearing, but oil shows were recorded in the upper 3 meters of the Heather Formation. A good stratigraphic tie to the Paleocene interval was established by the well, but no Paleocene sands were encountered. The high amplitude, observed on the seismic data at approximately 2070 ms TWT, most probably stems from the acoustic impedance contrast between the Heather sandstone - siltstone boundary and/or the Heather - Hugin boundary. No Permian sediments were encountered, with a stratigraphic succession going directly from Jurassic sediments into the Basement. Well 16/1-5 was terminated 194.5 m TVD into the Basement. Three cores were cut in the interval 2023 to 2066 m RKB in the Heather Formation. An FMT sample from 2024.5 m contained formation water and filtrate. The well was classified as dry. The sidetrack, 16/1-5 A, was kicked off at 1440 m RKB and a 8 1/2" hole section was drilled to a total depth of 2150 m with no casing strings run. Oil based mud was used from kick off to TD. The well encountered the Heather Formation "Sandstone Unit" close to prognosis. Moderate hydrocarbon shows were recorded in the thin, Cretaceous limestone sequence above the Heather Formation as well as in the upper 8 meters of the Heather Formation sandstone. The sidetrack was terminated 24 m TVD into the Heather Formation where a core was cut from 2123 m RKB to TD. No wire line logs were run and the well was permanently plugged and abandoned.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1450.00	2133.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerter i Sokkeldirektoratet



Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2123.0	2150.0	[m]

Total kjerneprøve lengde [m]	27.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2123-2128m



2128-2133m



2133-2138m



2138-2143m



2143-2148m



2148-2150m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
130	NORDLAND GP
745	UTSIRA FM
921	HORDALAND GP
1002	SKADE FM
1230	NO FORMAL NAME
1652	GRID FM
1798	NO FORMAL NAME
1973	ROGALAND GP
1973	BALDER FM
2002	SELE FM
2008	LISTA FM
2094	VÅLE FM



2101	SHETLAND GP
2101	HOD FM
2120	VIKING GP
2120	INTRA HEATHER FM SS

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
3626	pdf	0.07

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
3626_1	pdf	1.72

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
3626_16_1_5_A_COMPLETION_LOG	.pdf	2.56
3626_16_1_5_A_COMPLETION_REPORT	.pdf	26.60

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MPR MDP GR	1427	1674
MPR MDP GR	1674	2123
MPR MDP GR	2123	2150

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	191.0	36	191.0	0.00	LOT
SURF.COND.	13 3/8	1410.0	17 1/2	1417.0	1.81	LOT





OPEN HOLE		2150.0	8 1/2	2150.0	0.00	LOT
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Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
1440	1.50			oil based m	
2150	2.50			oil based m	