



Generell informasjon

Brønnbane navn	9/10-1
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	9/10-1
Seismisk lokalisering	
Utvinningstillatelse	022
Boreoperatør	Norske Murphy Oil Company
Boretillatelse	46-L
Boreinnretning	GULFTIDE
Boredager	20
Borestart	30.08.1970
Boreslutt	18.09.1970
Frigitt dato	18.09.1972
Publiseringsdato	22.04.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	29.0
Vanndybde ved midlere havflate [m]	59.0
Totalt målt dybde (MD) [m RKB]	2205.0
Maks inklinasjon [°]	0.75
Temperatur ved bunn av brønnbanen [°C]	57
Eldste penetrerte alder	LATE CRETACEOUS
Eldste penetrerte formasjon	TOR FM
Geodetisk datum	ED50
NS grader	57° 0' 4.02" N
ØV grader	4° 0' 33.52" E
NS UTM [m]	6318104.70
ØV UTM [m]	561313.41
UTM sone	31
NPDID for brønnbanen	183



Brønnhistorie

General

Well 9/10-1 is located in the Åsta Graben of the Danish Norwegian Basin in the North Sea. The location was selected to explore the northeast regional limit of Oligocene sands at a non-structural site and to reach the Danian very low on the South flank of the seismic "L" structure. The main objectives were the first and second Oligocene sands, which were gas bearing in the 2/3-1 well. The location, in addition, tested for presence of the Danian section, which had proved to be oil bearing in the Phillips Ekofisk area approximately 40 miles to the Southwest. There was also a possibility of the development of gas bearing zones within the Miocene section.

Operations and results

Wildcat well 9/10-1 was spudded with the jack-up installation Gulftide on 30 August 1970 and drilled to TD at 2205 m in the Late Cretaceous Tor Formation. A 38" hole was drilled to 143 m with seawater. After spotting a gel slurry, 36" drive pipe was set at 123 m. Drilling was continued with a 26" bit to 221 m using seawater where lost circulation became excessive. Attempts with a 50-barrel LCM slurry and a 300-sack cement plug were unsuccessful in sealing off the thief zone. The drilling was continued "blind" to 251 m where a 450-sack gel slurry was spotted and 20" casing run to 248 m and cemented. After installing 20" BOP, 17 1/2" hole was drilled to 953 m using a 10.7 lb gel mud. Three attempts were made to log this surface section but hole bridging conditions occurring at 279 m and 457 m would not permit deeper penetration. Went into the hole with the bit, tagged bottom, and then drilled 5 m with no obstruction. The hole was conditioned and logged from 457 m to 88 m. Rigged up BHA and went to bottom with the bit, cleaned out to 957 m, and drilled an additional 6 m. The 13 3/8" casing was then run and set with no problems to a depth of 960 m. Drilling continued with a 12 1/4" bit from under the 13 3/8" casing to core point at 2145 m. After coring drilling continued to 2205 m where the pipe became stuck at the collars while making a connection. The free point was determined at 2192 m. It was freed after spotting 50 bbl. of diesel oil mixed with Pipe Lax. No problems were encountered while logging at total depth after conditioning the hole. The well was drilled with seawater and gel down to 498 m, with seawater/Spersene from 498 m to 953 m, and with seawater/Spersene/XP-20 mud from 953 m to TD.

Sidewall cores and logs showed no sand development in the Miocene and Oligocene. A thin Danian chalk (Ekofisk Formation) was encountered on top of Late Cretaceous chalk (Tor Formation). Fair gas shows were recorded in the Miocene from 1006 m to 1097 m, believed to be associated with shales and thin limestone stringers. The Oligocene section and the Danian - Late Cretaceous chalks were water bearing.

A 30 ft core was cut from 2144.6 m to 2153.7 m in chalk of the Tor Formation. Measured porosity in the core was 18 % to 22 %. Sidewall cores were taken at 30 selected intervals with a recovery of 21 cores. No fluid sample was taken.

The well was permanently abandoned on 18 September 1970 as a dry hole.

Testing

No drill stem test was performed.

Borekjerter i Sokkeldirektoratet



Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	7036.0	7066.0	[ft]

Total kjerneprøve lengde [m]	9.1
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
88	NORDLAND GP
948	HORDALAND GP
1874	ROGALAND GP
1874	BALDER FM
1884	FISKEBANK FM
1957	LISTA FM
2112	SHETLAND GP
2112	EKOFISK FM
2116	TOR FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
183	pdf	0.14

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
183 01 WDSS General Information	pdf	0.16

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
183 01 Completion Report	pdf	1.20





183 02 Completion log	pdf	0.86
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Dokumenter - Sokkeldirektoratets publikasjoner

Dokument navn	Dokument format	Dokument størrelse [KB]
183 01 NPD Paper No.31 Lithology Norwegian Danish Basin Well 9 10 1	pdf	33.18
183 02 NPD Paper No.31 Correlation chart 4 Well 9 10 1	pdf	0.60

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
BHC GR	963	2201
GR	366	963
GRN	427	1280
HDT	963	2202
IES	248	457
IES	964	2204
IES GR	88	450
ML MLL C	1250	1280
ML MLL C	1646	1695
ML MLL C	2088	2204
VELOCITY	486	2205

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	123.0	36	123.0	0.00	LOT
SURF.COND.	20	248.0	26	252.0	0.00	LOT
INTERM.	13 3/8	960.0	17 1/2	963.0	0.00	LOT
OPEN HOLE		2205.0	12 1/2	2205.0	0.00	LOT

Boreslam





Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	Fløtegrense [Pa]	Type slam	Dato, måling
251	1.04	41.0		seawater	
769	1.28	40.0		waterbased	
963	1.25	40.0		waterbased	
1050	1.37	54.0		waterbased	
1947	1.36	52.0		waterbased	
2204	1.50	48.0		waterbased	