



Generell informasjon

Brønnbane navn	31/4-4
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	31/4-4
Seismisk lokalisering	X 954459 + 954235.
Utvinningstillatelse	055
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	267-L
Boreinnretning	NORTRYM
Boredager	63
Borestart	17.12.1980
Boreslutt	17.02.1981
Frigitt dato	17.02.1983
Publiseringsdato	07.11.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	214.0
Totalt målt dybde (MD) [m RKB]	3150.0
Totalt vertikalt dybde (TVD) [m RKB]	3150.0
Maks inklinasjon [°]	1
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	STATFJORD GP
Geodetisk datum	ED50
NS grader	60° 40' 1.12" N
ØV grader	3° 6' 54.12" E
NS UTM [m]	6725858.96
ØV UTM [m]	506287.02
UTM sone	31
NPDID for brønnbanen	214



Brønnhistorie

General

Wildcat well 31/4-4 is located on the Lomre Terrace north of the Brage Field and east of the Oseberg Field. The primary objective of the well was to test possible sandstone reservoirs of Cretaceous age. The secondary objective was to test sandstone reservoirs of Late Jurassic age, anticipated to be Intra Heather Formation sands.

The well is Reference Well for the Etive, Ness, and Tarbert Formations of the Brent Group.

Operations and results

Well 31/4-4 was spudded with the semi-submersible installation Nortrym on 17 December 1980 and drilled to TD at 3150 m in Early Jurassic sediments of the Statfjord Formation. The well was drilled with seawater and viscous gel down to 900 m and with KCl / polymer mud from 900 m to TD.

No reservoir sands of Cretaceous age were encountered in the well. Poor shows were reported from two limestone stringers and a thin, tight sandstone stringer of Late Cretaceous (Maastrichtian and Late Campanian) age. A Late Jurassic "Intra Heather Sand I" (Sognefjord Formation) was encountered at 2363 m with a gross thickness of 39 m. The net sand interval was 24 m and consisted of fine-grained to very fine-grained argillaceous, micaceous sandstone. Average porosity was calculated to 16 %. Eighty-nine percent water saturation was calculated for this sand indicating that poor oil shows encountered while drilling the interval, were residual. A second "Intra Heather Sand II" (Fensfjord Formation) was penetrated at 2482 m with a gross thickness of 45 m. The sand was water bearing without shows. The lithology was similar to the upper sand. The other reservoir sequences encountered in the well, sandstones in the Middle Jurassic Brent Formation, the Early Jurassic Cook Formation, and the Statfjord Formation, were also water bearing. The gross sand thicknesses of these were 118 m, 21m and 67m, respectively.

A single conventional core was cut between 2490m and 2508m, near the top of the lower Intra Heather Sand interval. It was dated to Oxfordian in age and consisted of 18 m (100%) of very fine-grained sandstone with good porosity, except in some heavily cemented horizons. No fluid sample was taken.

The well was permanently abandoned on 17 February 1981 as a dry hole.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
350.00	3150.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2490.0	2508.0	[m]

Total kjerneprøve lengde [m]	18.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2490-2492m



2492-2495m



2495-2498m



2498-2500m



2500-2503m



2503-2506m



2506-2508m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
740.0	[m]	DC	
760.0	[m]	DC	
790.0	[m]	DC	
820.0	[m]	DC	
850.0	[m]	DC	
880.0	[m]	DC	
910.0	[m]	DC	
940.0	[m]	DC	
970.0	[m]	DC	
1000.0	[m]	DC	



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 14.5.2024 - 18:30

1030.0 [m]	DC	
1060.0 [m]	DC	
1090.0 [m]	DC	
1120.0 [m]	DC	
1150.0 [m]	DC	
1180.0 [m]	DC	
1210.0 [m]	DC	
1240.0 [m]	DC	
1270.0 [m]	DC	
1300.0 [m]	DC	
1330.0 [m]	DC	
1360.0 [m]	DC	
1390.0 [m]	DC	
1420.0 [m]	DC	
1450.0 [m]	DC	
1480.0 [m]	DC	
1510.0 [m]	DC	
1540.0 [m]	DC	
1570.0 [m]	DC	
1600.0 [m]	DC	
1630.0 [m]	DC	
1660.0 [m]	DC	
1690.0 [m]	DC	
1720.0 [m]	DC	
1720.0 [m]	DC	
1750.0 [m]	DC	
1780.0 [m]	DC	
1810.0 [m]	DC	
1840.0 [m]	DC	
1870.0 [m]	DC	
1900.0 [m]	DC	
1910.0 [m]	DC	
1930.0 [m]	DC	
1945.0 [m]	DC	
1960.0 [m]	DC	
1970.0 [m]	DC	
1980.0 [m]	DC	
1990.0 [m]	DC	
2000.0 [m]	DC	
2020.0 [m]	DC	



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 14.5.2024 - 18:30

2040.0	[m]	DC	
2050.0	[m]	DC	
2080.0	[m]	DC	
2100.0	[m]	DC	
2115.0	[m]	DC	
2130.0	[m]	DC	
2150.0	[m]	DC	
2160.0	[m]	DC	
2175.0	[m]	DC	
2190.0	[m]	DC	
2200.0	[m]	DC	
2213.0	[m]	SWC	IKU
2216.0	[m]	SWC	IKU
2220.0	[m]	DC	
2227.0	[m]	DC	
2250.0	[m]	DC	
2255.0	[m]	DC	
2280.0	[m]	DC	
2280.0	[m]	C	IKU
2285.0	[m]	DC	PETROSTR
2287.0	[m]	DC	PETROS
2290.0	[m]	DC	PETROS
2295.0	[m]	DC	PETROS
2300.0	[m]	DC	
2302.0	[m]	DC	PETROS
2305.0	[m]	C	IKU
2312.0	[m]	DC	PETROSTR
2317.0	[m]	DC	PETROS
2325.0	[m]	DC	PETROS
2330.0	[m]	DC	PETROS
2330.0	[m]	C	IKU
2335.0	[m]	DC	PETROSTR
2352.0	[m]	DC	PETROSTR
2357.0	[m]	DC	PETROS
2362.0	[m]	DC	PETROS
2364.0	[m]	SWC	IKU
2365.0	[m]	DC	PETROSTR
2367.0	[m]	DC	PETROS
2382.0	[m]	DC	PETROS
2382.0	[m]	SWC	IKU



2385.0	[m]	DC	PETROSTR
2387.0	[m]	DC	PETROS
2410.0	[m]	SWC	IKU
2480.0	[m]	SWC	IKU
2484.9	[m]	SWC	IKU
2489.6	[m]	C	IKU
2493.5	[m]	C	IKU
2498.0	[m]	C	IKU
2502.5	[m]	C	IKU
2506.8	[m]	C	IKU
2507.7	[m]	C	IKU
2522.9	[m]	SWC	IKU
2528.9	[m]	SWC	IKU
2577.0	[m]	SWC	IKU
2628.0	[m]	SWC	IKU
2667.0	[m]	SWC	IKU
2697.0	[m]	SWC	IKU
2716.0	[m]	SWC	IKU
2767.0	[m]	SWC	IKU
2785.9	[m]	SWC	IKU
2788.6	[m]	SWC	IKU
2830.0	[m]	SWC	IKU
2851.0	[m]	SWC	IKU
2855.0	[m]	SWC	IKU
2959.0	[m]	SWC	IKU
2986.0	[m]	SWC	IKU
3022.0	[m]	SWC	IKU
3040.0	[m]	SWC	IKU
3060.0	[m]	SWC	IKU
3080.0	[m]	SWC	IKU
3136.0	[m]	SWC	IKU
3152.0	[m]	SWC	IKU

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
239	NORDLAND GP
733	UTSIRA FM
810	UNDIFFERENTIATED



890	HORDALAND GP
1796	ROGALAND GP
1796	BALDER FM
1853	SELE FM
1893	LISTA FM
2050	VÅLE FM
2067	SHETLAND GP
2195	CROMER KNOLL GP
2300	VIKING GP
2300	DRAUPNE FM
2365	SOGNEFJORD FM
2402	HEATHER FM
2482	FENSFJORD FM
2527	HEATHER FM
2680	BRENT GP
2680	TARBERT FM
2695	NESS FM
2721	ETIVE FM
2798	DUNLIN GP
2935	COOK FM
2956	DUNLIN GP
3087	STATFJORD GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
214	pdf	0.49

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
214_1	pdf	0.53
214_2	pdf	1.70

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter





Dokument navn	Dokument format	Dokument størrelse [KB]
214 01 WDSS General Information	pdf	0.10
214 02 WDSS completion log	pdf	0.27

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
214 01 Completion Report	pdf	12.43
214 02 Completion log	pdf	2.24

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CST	2060	2410
CST	2066	2735
CST	2480	3152
FDC CNL GR CAL	1909	3153
FDC GR CAL	886	1908
HDT	2000	3153
ISF BHC GR SP	324	3152
RFT	2366	3147
VELOCITY	800	3140

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	324.0	36	325.0	0.00	LOT
SURF.COND.	20	886.0	26	900.0	1.60	LOT
INTERM.	13 3/8	1481.0	17 1/2	1918.0	1.60	LOT
OPEN HOLE		3152.0	12 1/4	3152.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
325	1.04	100.0		seawater	





900	1.11	39.0		seawater	
1918	1.40	53.0	18.0	seawater	
2490	1.30	57.0	17.0	seawater	
3150	1.30	61.0	22.0	seawater	

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]
214 Formation pressure (Formasjonstrykk)	pdf	0.22

