



Generell informasjon

Brønnbane navn	30/6-6
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	OSEBERG
Funn	30/6-1 Oseberg
Brønn navn	30/6-6
Seismisk lokalisering	8006 - 203 SP 280
Utvinningstillatelse	053
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	311-L
Boreinnretning	DEEPSEA SAGA
Boredager	75
Borestart	09.01.1982
Boreslutt	24.03.1982
Frigitt dato	24.03.1984
Publiseringsdato	29.03.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	114.0
Totalt målt dybde (MD) [m RKB]	3225.0
Totalt vertikalt dybde (TVD) [m RKB]	3224.0
Maks inklinasjon [°]	2.5
Temperatur ved bunn av brønnbanen [°C]	125
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	COOK FM
Geodetisk datum	ED50
NS grader	60° 36' 43.43" N
ØV grader	2° 49' 54.11" E
NS UTM [m]	6719748.76
ØV UTM [m]	490785.95



UTM sone	31
NPDID for brønnbanen	39

Brønnhistorie

General

Well 30/6-6 was drilled on the 30/6 Alpha structure (Oseberg fault block) in the North Sea, as the fifth well drilled on this structure. The well was drilled down-dip of 30/6-3 and 30/6-4. The primary objective of this well was to define the oil-water contact for the structure. This would be achieved by penetrating the OWC or by extrapolation of fluid gradients from RFT and DST pressure measurements.

Operations and results

Appraisal well 30/6-6 was spudded with the semi-submersible installation Deepsea Saga on 9 January 1982 and drilled to TD at 3225 m in the Early Jurassic Cook Formation. Drilling operations proceeded without specific problems down to ca 1300 m. At this depth problems related to excessive torque and drag on short trips occurred. The mud weight was then reduced from 1.4 to 1.29 after which drilling again proceeded without problems. The well was drilled with spud mud down to 200 m, with Gel/seawater/spud mud from 200 m to 1793 m, and with gel/lignosulphonate mud from 1793 m to TD.

Top Viking Group was penetrated at 2587 m and consisted of 113 m Draupne Formation shales on top of 120 m Heather Formation. The Brent Group was encountered at 2820 m. It was water bearing. Combined RFT-pressures from 30/6-6 and 30/6-4 gave an oil/water contact at 2720 +/- 20 m, which was later confirmed by the build-up pressures from the DST and the calculated water density under reservoir conditions. No indications of H₂S were seen in this well. No shows are reported from the well.

Three cores were taken in the Ness and Eive formations from 2921 m - 2964 m. RFT water samples were attempted at 2879 m, 2955 m and 2956 m, but were only moderately successful due to poor recovery and contamination with cushion water.

The well was permanently abandoned on 24 March 1982 as a dry well.

Testing

One DST was perforated over 2946 to 2962 m in the water zone in the Eive Formation. The well was production tested and tests on reservoir parameters were carried out, including use of tritium tracers. The well produced 380 m³ water /day through a 64/64" choke. The maximum flowing temperature recorded during the test was 116.5 deg C. Water samples were taken. The production test was followed by an injection test through the same perforations.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
200.00	3224.00

Borekaks tilgjengelig for prøvetaking?	YES
--	-----



Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2921.0	2933.0	[m]
2	2936.5	2954.0	[m]
3	2963.6	2969.0	[m]

Total kjerneprøve lengde [m]	34.9
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2926-2931m



2931-2933m



2935-2941m



2941-2946m



2946-2951m



2951-2954m



2963-2964m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1360.0	[m]	DC	GEOCH
1390.0	[m]	DC	GEOCH
1410.0	[m]	DC	GEOCH
1470.0	[m]	DC	GEOCH
1500.0	[m]	DC	GEOCH
1530.0	[m]	DC	GEOCH
1560.0	[m]	DC	GEOCH
1590.0	[m]	DC	GEOCH



1620.0	[m]	DC	GEOCH
1650.0	[m]	DC	GEOCH
1680.0	[m]	DC	GEOCH
1710.0	[m]	DC	GEOCH
1740.0	[m]	DC	GEOCH
1770.0	[m]	DC	GEOCH
1800.0	[m]	DC	GEOCH
1830.0	[m]	DC	GEOCH
1860.0	[m]	DC	GEOCH
1890.0	[m]	DC	GEOCH
1920.0	[m]	DC	GEOCH
1950.0	[m]	DC	GEOCH
1980.0	[m]	DC	GEOCH
2009.0	[m]	DC	GEOCH
2015.0	[m]	DC	GEOCH
2036.0	[m]	DC	GEOCH
2063.0	[m]	DC	GEOCH
2090.0	[m]	DC	GEOCH
2135.0	[m]	DC	GEOCH
2162.0	[m]	DC	GEOCH
2189.0	[m]	DC	GEOCH
2216.0	[m]	DC	GEOCH
2243.0	[m]	DC	GEOCH
2270.0	[m]	DC	GEOCH
2294.0	[m]	DC	GEOCH
2321.0	[m]	DC	GEOCH
2339.0	[m]	DC	GEOCH
2348.0	[m]	DC	GEOCH
2351.0	[m]	DC	GEOCH
2610.0	[m]	SWC	RRI
2626.0	[m]	SWC	RRI
2630.0	[m]	SWC	RRI
2654.0	[m]	SWC	RRI
2659.0	[m]	SWC	RRI
2689.0	[m]	SWC	RRI
2701.0	[m]	SWC	RRI
2722.0	[m]	SWC	RRI
2740.0	[m]	SWC	RRI
2760.0	[m]	SWC	RRI
2780.0	[m]	SWC	RRI



2792.0	[m]	SWC	RRI
2807.0	[m]	SWC	RRI
2819.0	[m]	SWC	RRI
2824.0	[m]	SWC	RRI
2831.0	[m]	SWC	RRI
2838.0	[m]	SWC	RRI
2861.0	[m]	SWC	RRI
2898.0	[m]	SWC	RRI
2928.5	[m]	SWC	RRI
2967.0	[m]	SWC	RRI
3010.0	[m]	SWC	RRI
3035.0	[m]	SWC	RRI
3151.0	[m]	SWC	RRI

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
138	NORDLAND GP
703	UTSIRA FM
893	HORDALAND GP
2092	ROGALAND GP
2092	BALDER FM
2188	SELE FM
2289	LISTA FM
2338	SHETLAND GP
2553	CROMER KNOLL GP
2587	VIKING GP
2587	DRAUPNE FM
2700	HEATHER FM
2820	BRENT GP
2820	TARBERT FM
2861	NESS FM
2931	ETIVE FM
2965	DUNLIN GP
2965	DRAKE FM
3152	COOK FM

Geokjemisk informasjon





Dokument navn	Dokument format	Dokument størrelse [KB]
39_1_Hydrocarbon_migration_in_a_selected_area_of_the_North_Sea	pdf	20.54
39_1	pdf	1.31
39_2	pdf	0.25
39_3	pdf	44.44
39_4	pdf	21.44

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
39_01_WDSS_General_Information	pdf	0.17
39_02_WDSS_completion_log	pdf	0.25

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
39_1_Hydrocarbon_migration_in_a_selected_area_of_the_North_Sea	pdf	20.54

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2946	2962	25.4

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningsstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0					





Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL CCL VDL GR	450	3046
CDM AP	2251	3224
FDC CNL GR CAL	605	3223
HDT	2552	3224
ISF SON MSFL GR	131	3223
RFT HP	2823	3191
VELOCITY	131	3223

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	199.5	36	200.0	0.00	LOT
SURF.COND.	20	605.0	26	620.0	1.48	LOT
INTERM.	13 3/8	1793.0	17 1/2	1815.0	1.68	LOT
INTERM.	9 5/8	2251.0	12 1/4	2565.0	1.74	LOT
LINER	7	3220.0	8 1/2	3220.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
200	1.04	40.0		waterbased	
470	1.08	55.0		waterbased	
955	1.09	53.0		waterbased	
1310	1.39	86.0		waterbased	
1655	1.21	56.0		waterbased	
2190	1.48	54.0		waterbased	
2570	1.25	49.0		waterbased	
2815	1.23	55.0		waterbased	

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 brønnspar. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
39 Formation pressure (Formasjonstrykk)	pdf	0.22

