



Generell informasjon

Brønnbane navn	15/6-6
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	SLEIPNER VEST
Funn	15/6-3 Sleipner Vest
Brønn navn	15/6-6
Seismisk lokalisering	ST 8010 - 118 SP 345
Utvinningstillatelse	029
Boreoperatør	Esso Exploration and Production Norway A/S
Boretillatelse	308-L
Boreinnretning	GLOMAR BISCAY II
Boredager	70
Borestart	01.04.1982
Boreslutt	09.06.1982
Frigitt dato	09.06.1984
Publiseringsdato	19.12.2007
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	GAS/CONDENSATE
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	HUGIN FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	110.0
Totalt målt dybde (MD) [m RKB]	3760.0
Totalt vertikalt dybde (TVD) [m RKB]	3760.0
Maks inklinasjon [°]	2.75
Temperatur ved bunn av brønnbanen [°C]	122
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	SKAGERRAK FM
Geodetisk datum	ED50



NS grader	58° 31' 14.7" N
ØV grader	1° 44' 53.3" E
NS UTM [m]	6487517.21
ØV UTM [m]	427079.83
UTM sone	31
NPDID for brønnbanen	38

Brønnhistorie

General

Well 15/6-6 was drilled to appraise the north eastern flank of Alpha structure on the 15/6-3 Sleipner Vest Discovery in the North Sea. The primary target was a gas bearing Jurassic sandstone known as the Hugin Formation. It was drilled to provide needed structural control and to establish a gas/water contact.

Operations and results

Appraisal well 15/6-6 was spudded with the semi-submersible installation Glomar Biscay II on 1 April 1982 and drilled to TD at 3760 m in Late Triassic sediments of the Skagerrak Formation. The 36" hole had to be reamed several times due to ledging. This also occurred in the top of the 26" section. Forty-six bbl's (7.3 m³) of fluid were lost to the formation during cementing of the 13 3/8" casing. The mud weight in this section was 1.68 which is lower than the previous Sleipner wells. This and the fluid loss can possibly be related to an unconsolidated sand (Skade Formation) interval from 1185 to 1199 m. Minor hole problems were encountered in the 12 1/4" section. The drill string was temporarily stuck at 1627 m after making a connection. The well was drilled with seawater and gel.

The well proved sands in the Utsira, Grid, Heimdal, and Sleipner Formations; all water bearing. The gas bearing Hugin Formation was encountered at 3563 m and had a gross thickness of 58 m. The gas/water contact was found at 3607 m, which gives a gross gas interval of 44 m. No oil shows were reported from the target reservoir or other sections in the well.

Three cores were taken in the Middle Jurassic interval in the 8 1/2" section. Core 1 recovered 18.5 m sandstone from 3591 m to 3609.5 m. Core 2 recovered 16.0 m sandstone from 3609.5 m to 3622 m. Core 3 recovered 18.9 m Sandstone, shale and coal from 3625.5 m to 3644.5 m. No wire line fluid sample was taken.

The well was permanently abandoned on 9 June 1982 as a gas appraisal well.

Testing

The well was tested in the interval 3568 - 3578 m in the Hugin Formation where reservoir data indicated significant accumulations of gas and condensate. The test produced 835000 Sm³ gas and 278 Sm³ condensate /day through a 56/64" choke. The GOR (gas/condensate ratio) was 3003 Sm³/Sm³ and the condensate gravity was 47 dg API. The gas gravity was 0.762 (air = 1), the CO₂ content was 5 % and the H₂S content was 7.5 ppm.

Borekaks i Sokkeldirektoratet



Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
210.00	3760.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3591.0	3609.5	[m]
2	3609.5	3625.5	[m]
3	3625.5	3644.4	[m]

Total kjerneprøve lengde [m]	53.4
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
500.0	[m]	DC	
530.0	[m]	DC	
560.0	[m]	DC	
590.0	[m]	DC	
620.0	[m]	DC	
650.0	[m]	DC	
690.0	[m]	DC	
710.0	[m]	DC	
740.0	[m]	DC	
770.0	[m]	DC	
800.0	[m]	DC	
830.0	[m]	DC	
860.0	[m]	DC	
890.0	[m]	DC	
920.0	[m]	DC	
950.0	[m]	DC	
980.0	[m]	DC	
1010.0	[m]	DC	
1040.0	[m]	DC	
1070.0	[m]	DC	



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 15.5.2024 - 12:13

1100.0 [m]	DC	
1130.0 [m]	DC	
1160.0 [m]	DC	
1190.0 [m]	DC	
1220.0 [m]	DC	
1250.0 [m]	DC	
1280.0 [m]	DC	
1310.0 [m]	DC	
1340.0 [m]	DC	
1370.0 [m]	DC	
1400.0 [m]	DC	
1430.0 [m]	DC	
1460.0 [m]	DC	
1490.0 [m]	DC	
1520.0 [m]	DC	
1550.0 [m]	DC	
1580.0 [m]	DC	
1610.0 [m]	DC	
1640.0 [m]	DC	
1670.0 [m]	DC	
1700.0 [m]	DC	
1730.0 [m]	DC	
1760.0 [m]	DC	
1790.0 [m]	DC	
1820.0 [m]	DC	
1850.0 [m]	DC	
1880.0 [m]	DC	
1910.0 [m]	DC	
1940.0 [m]	DC	
1970.0 [m]	DC	
2000.0 [m]	DC	
2030.0 [m]	DC	
2060.0 [m]	DC	
2090.0 [m]	DC	
2120.0 [m]	DC	
2150.0 [m]	DC	
2180.0 [m]	DC	
2210.0 [m]	DC	
2220.0 [m]	DC	
2230.0 [m]	DC	



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 15.5.2024 - 12:13

2240.0	[m]	DC	
2250.0	[m]	DC	
2260.0	[m]	DC	
2270.0	[m]	DC	
2280.0	[m]	DC	
2290.0	[m]	DC	
2300.0	[m]	DC	
2310.0	[m]	DC	
2320.0	[m]	DC	
2330.0	[m]	DC	
2340.0	[m]	DC	
2350.0	[m]	DC	
2360.0	[m]	DC	
2370.0	[m]	DC	
2390.0	[m]	DC	
2400.0	[m]	DC	
2410.0	[m]	DC	
2420.0	[m]	DC	
2430.0	[m]	DC	
2440.0	[m]	DC	
2450.0	[m]	DC	
2460.0	[m]	DC	
2480.0	[m]	DC	
2500.0	[m]	DC	
2510.0	[m]	DC	
2540.0	[m]	DC	
2570.0	[m]	DC	
2600.0	[m]	DC	
2630.0	[m]	DC	
2660.0	[m]	DC	
2690.0	[m]	DC	
2720.0	[m]	DC	
2730.0	[m]	DC	
2740.0	[m]	DC	
2750.0	[m]	DC	
2760.0	[m]	DC	
2770.0	[m]	DC	
2780.0	[m]	DC	
2810.0	[m]	DC	
2840.0	[m]	DC	



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 15.5.2024 - 12:13

2870.0	[m]	DC	
2900.0	[m]	DC	
2930.0	[m]	DC	
2960.0	[m]	DC	
2990.0	[m]	DC	
3020.0	[m]	DC	
3050.0	[m]	DC	
3080.0	[m]	DC	
3110.0	[m]	DC	
3140.0	[m]	DC	
3170.0	[m]	DC	
3200.0	[m]	DC	
3230.0	[m]	DC	
3260.0	[m]	DC	
3290.0	[m]	DC	
3320.0	[m]	DC	
3350.0	[m]	DC	
3380.0	[m]	DC	
3401.0	[m]	SWC	
3403.0	[m]	SWC	
3407.0	[m]	SWC	
3409.0	[m]	DC	
3410.0	[m]	SWC	
3427.0	[m]	SWC	
3436.5	[m]	SWC	
3451.0	[m]	DC	
3462.0	[m]	SWC	
3481.0	[m]	DC	
3482.0	[m]	SWC	
3492.0	[m]	SWC	
3495.0	[m]	SWC	
3499.0	[m]	SWC	
3511.0	[m]	DC	
3516.0	[m]	SWC	
3524.0	[m]	SWC	
3541.0	[m]	DC	
3543.0	[m]	SWC	
3548.0	[m]	SWC	
3554.5	[m]	SWC	
3556.0	[m]	SWC	



3558.0	[m]	SWC	
3562.0	[m]	SWC	
3571.0	[m]	DC	
3601.0	[m]	DC	
3631.0	[m]	DC	
3648.2	[m]	SWC	
3655.0	[m]	DC	
3659.2	[m]	SWC	
3661.0	[m]	DC	
3664.0	[m]	DC	
3691.0	[m]	DC	
3702.0	[m]	SWC	
3721.0	[m]	DC	
3740.0	[m]	SWC	
3751.0	[m]	DC	

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
135	NORDLAND GP
807	UTSIRA FM
1043	HORDALAND GP
1141	SKADE FM
1202	NO FORMAL NAME
1917	GRID FM
1971	NO FORMAL NAME
2205	ROGALAND GP
2205	BALDER FM
2260	SELE FM
2329	LISTA FM
2353	HEIMDAL FM
2647	LISTA FM
2740	SHETLAND GP
2740	EKOFISK FM
2778	TOR FM
3050	HOD FM
3290	BLODØKS FM
3354	SVARTE FM
3377	CROMER KNOLL GP



3398	VIKING GP
3398	DRAUPNE FM
3418	HEATHER FM
3563	VESTLAND GP
3563	HUGIN FM
3621	SLEIPNER FM
3655	NO GROUP DEFINED
3655	SKAGERRAK FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
38	pdf	0.78

Dokumenter - eldre Sökkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
38 01 WDSS General Information	pdf	0.17
38 02 WDSS completion log	pdf	0.28

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
38 01 15 6 6 Completion Report and Completion_log	pdf	34.77

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3568	3578	22.2





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	278	835000	0.793	0.762	3003

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
AC CBL	2446	3630
CALIPER	160	424
CDL CNL GR	2763	3754
DIPLOG	2773	3749
DLL MLL	3500	3750
IEL BHC AC GR SP	190	3753
TEMP	195	1174
TEMP	1500	2754
TEMP	3569	3716
VSP	1800	3748

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	196.0	36	197.0	0.00	LOT
SURF.COND.	20	447.0	26	465.0	1.54	LOT
INTERM.	13 3/8	1203.0	17 1/2	1218.0	1.67	LOT
INTERM.	9 5/8	2778.0	12 1/4	2794.0	1.72	LOT
LINER	7	3686.0	8 1/2	3760.0	0.00	LOT

Boreslam



Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
380	1.08	41.0		waterbased	
720	1.10	40.0		waterbased	
1360	1.12	49.0		waterbased	
2420	1.16	51.0		waterbased	
3290	1.34	48.0		waterbased	
3440	1.34	47.0		waterbased	
3610	1.36	42.0		waterbased	
3660	1.34	47.0		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 brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
38 Formation pressure (Formasjonstrykk)	pdf	0.23

