



Generell informasjon

Brønnbane navn	25/10-3
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	BALDER
Funn	25/11-1 Balder
Brønn navn	25/10-3
Seismisk lokalisering	line sc 72-shot point 6626
Utvinningstillatelse	028
Boreoperatør	Esso Exploration and Production Norway A/S
Boretillatelse	45-L
Boreinnretning	GLOMAR GRAND ISLE
Boredager	18
Borestart	27.08.1970
Boreslutt	13.09.1970
Frigitt dato	13.09.1972
Publiseringsdato	10.01.2010
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	EOCENE
1. nivå med hydrokarboner, formasjon.	INTRA BALDER FM SS
Avstand, boredekk - midlere havflate [m]	10.0
Vanndybde ved midlere havflate [m]	126.0
Totalt målt dybde (MD) [m RKB]	1921.0
Totalt vertikalt dybde (TVD) [m RKB]	1921.0
Temperatur ved bunn av brønnbanen [°C]	63
Eldste penetrerte alder	PALEOCENE
Eldste penetrerte formasjon	EKOFISK FM
Geodetisk datum	ED50
NS grader	59° 12' 56.5" N



ØV grader	2° 19' 41.73" E
NS UTM [m]	6564415.06
ØV UTM [m]	461647.04
UTM sone	31
NPDID for brønnbanen	182

Brønnhistorie

General

Well 25/10-3 is located in the western part of the Balder Field complex on the Utsira High in the North Sea. Lower Eocene oil sands had been encountered in Esso wells 25/10-1, 25/11-1 and 25/8-1. The objective of 25/10-3 was to test the Eocene sand in a lower structural position to accurately establish the oil/water contact in the area; to determine their lateral continuity and if they would thicken towards the northwest.

Operations and results

Well 25/10-3 was spudded with the vessel Glomar Grand Isle on 27 August 1970 and drilled to TD at 1921 m in the Early Paleocene Ekofisk Formation. Except for stuck pipe at 1247 m, which was worked free with Diesel oil and pipe lax in 4 hours, drilling operations were routine and trouble-free. The well was drilled with seawater/gel down to 402 m, with seawater Spersene/XP-20/Salinex mud from 402 m to 951 m, and with fresh water/Spersene/XP-20 mud from 951 m to TD.

The Oligocene to Recent sediments consisted of clays and sands with no indications of hydrocarbons. The 518 m thick Eocene section was chiefly grey to grey green clay shales with 6.7 m of wet sand in the interval 1401 m to 1413 m (Grid Formation), a 4 m oil-bearing sand from 1750 to 1754 m (Intra Balder Formation sandstone), and a 1 m wet sand at 1799 m. The 4 m oil sand had 32-36% porosity and tested 26 deg API gravity oil on a wire line formation test. Oil shows were observed in cuttings from 1716 m and down to the top of the oil bearing sand, and shows continued down to 1768 m, all through the cored section. In addition to the Intra Balder Formation sandstone the Paleocene section penetrated was composed primarily of 3 sands interbedded with grey green shale. From top to bottom the Paleocene sands were respectively 29 m thick with 35% porosity, 38 m thick with 35% porosity, and 9 m thick with 30% porosity. These sands were water-bearing.

The OWC was concluded to be somewhere between 1754 m and 1799 m. It was also concluded that the thin Lower Eocene sands did not correlate between wells and appeared to be lenticular and discontinuous.

One core was cut in the Balder Formation from 1752.6 m to 1768.1 m with 100% recovery. Formation Interval Tests (FIT) were conducted at 1750.8 m and at 1752 m. The first, at 1752.8 m, was a seal failure. The second recovered 0.052 Sm³ gas, 0.9 l oil, and 2.3 l gas and oil cut mud.

The well was permanently abandoned on 13 September 1970 as an oil appraisal well.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
402.34	1908.96

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	5750.0	5801.0	[ft]

Total kjerneprøve lengde [m]	15.5
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2970.0	[ft]	DC	
3090.0	[ft]	DC	
3180.0	[ft]	DC	
3270.0	[ft]	DC	
3390.0	[ft]	DC	
3480.0	[ft]	DC	
3600.0	[ft]	DC	
3690.0	[ft]	DC	
3780.0	[ft]	DC	
3900.0	[ft]	DC	
3990.0	[ft]	DC	
4080.0	[ft]	DC	
4200.0	[ft]	DC	
4290.0	[ft]	DC	
4380.0	[ft]	DC	
4500.0	[ft]	DC	
4590.0	[ft]	DC	
4680.0	[ft]	DC	
4800.0	[ft]	DC	
4890.0	[ft]	DC	
4980.0	[ft]	DC	



5000.0	[ft]	DC	
5100.0	[ft]	DC	
5190.0	[ft]	DC	
5280.0	[ft]	DC	
5400.0	[ft]	DC	
5490.0	[ft]	DC	
5500.0	[ft]	DC	
5520.0	[ft]	DC	
5540.0	[ft]	DC	
5560.0	[ft]	DC	
5580.0	[ft]	DC	
5600.0	[ft]	DC	
5620.0	[ft]	DC	
5640.0	[ft]	DC	
5660.0	[ft]	DC	
5680.0	[ft]	DC	
5700.0	[ft]	DC	
5761.0	[ft]	C	
5799.0	[ft]	C	
5800.0	[ft]	DC	
5830.0	[ft]	DC	
5860.0	[ft]	DC	
5860.0	[ft]	DC	
5890.0	[ft]	DC	
5920.0	[unknown]	DC	
5980.0	[ft]	DC	
6040.0	[ft]	DC	
6070.0	[ft]	DC	
6100.0	[ft]	DC	
6160.0	[ft]	DC	
6190.0	[ft]	DC	
6220.0	[ft]	DC	
6280.0	[ft]	DC	

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
136	NORDLAND GP
533	UTSIRA FM



689	NO FORMAL NAME
738	HORDALAND GP
738	SKADE FM
941	NO FORMAL NAME
1122	SKADE FM
1229	NO FORMAL NAME
1401	GRID FM
1410	NO FORMAL NAME
1711	ROGALAND GP
1711	BALDER FM
1750	INTRA BALDER FM SS
1753	BALDER FM
1769	SELE FM
1808	HERMOD FM
1837	SELE FM
1841	HEIMDAL FM
1879	LISTA FM
1900	HEIMDAL FM
1909	LISTA FM
1911	SHETLAND GP
1911	EKOFISK FM

Dokumenter - eldre Sökkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
182_01_WDSS_General_Information	pdf	0.16

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
182_01_25_10_3_Completion_Log	pdf	0.98
182_01_25_10_3_Completion_report	pdf	1.02

Dokumenter - Sökkeldirektoratets publikasjoner





Dokument navn	Dokument format	Dokument størrelse [KB]
182_01_NPD_Paper_No.28_Lithology_Balder_area_Well_25_10_3	pdf	18.56
182_02_NPD_Paper_No.28_Lithologic_Correlation_chart_Well_25_10_3	pdf	0.48
182_03_NPD_Paper_No.28_Log_Correlation_chart_Profile_NW-SE_Well_25_10_3	pdf	0.25

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsventil størrelse [mm]
1.0	1750	1752	0.0

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [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	900		0.840		

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
BHC SON GR	3092	6285
DEN	3092	62295
GR	446	3092
IEL	3093	6295
VELOCITY	0	0

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	173.0	36	177.0	0.00	LOT





SURF.COND.	13 3/8	386.0	17 1/2	402.0	0.00	LOT
INTERM.	9 5/8	942.0	12 1/4	951.0	0.00	LOT
OPEN HOLE		1921.0	8 1/2	1921.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Fløtegrense [Pa]	Type slam	Dato, måling
173	0.00			waterbased	
386	0.00			waterbased	
942	0.00			waterbased	