



Generell informasjon

Brønnbane navn	2/7-29
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	2/7-29
Brønn navn	2/7-29
Seismisk lokalisering	BPN 10-500 X LINE 1170
Utvinningstillatelse	145
Boreoperatør	BP Norway Limited U.A.
Boretillatelse	765-L
Boreinnretning	MÆRSK GUARDIAN
Boredager	111
Borestart	18.09.1993
Boreslutt	06.01.1994
Frigitt dato	06.01.1996
Publiseringsdato	24.09.2003
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	ELDFISK FM
Avstand, boredekk - midlere havflate [m]	42.2
Vanndybde ved midlere havflate [m]	72.0
Totalt målt dybde (MD) [m RKB]	4900.0
Totalt vertikalt dybde (TVD) [m RKB]	4893.0
Maks inklinasjon [°]	7.6
Temperatur ved bunn av brønnbanen [°C]	170
Eldste penetrerte alder	EARLY PERMIAN
Eldste penetrerte formasjon	ROTLIEGEND GP
Geodetisk datum	ED50
NS grader	56° 18' 43.62" N
ØV grader	3° 4' 55.28" E



NS UTM [m]	6240959.65
ØV UTM [m]	505074.49
UTM sone	31
NPDID for brønnbanen	2124

Brønnhistorie

General

Well 2/7-29 was the second commitment well on licence PL 145. The primary objective was to establish the presence, quality and fluid content of Jurassic sandstones in Prospects JU2 and JU7 via cores and wire line logs and to evaluate their productivity and fluid properties if hydrocarbon bearing. The pre-Cretaceous was to be accurately dated via biostratigraphy. The secondary objective was to verify the presence, quality and fluid content of Permian sandstones in Prospect P2, and if possible to test the margin of the Jurassic JU2-B Prospect located stratigraphically between JU2 and JU7.

Operations and results

Exploration well 2/7-29 was spudded with the jack-up installation "Maersk Guardian" on 18 September 1993 and drilled to TD at 4900 m in mudstones of the Permian Rotliegend Group. A 9 7/8" pilot hole was drilled to 310 m before opening to 36" to evaluate possible shallow gas. No shallow gas was observed and the 30" casing was set at 302 m. A further 9 7/8" pilot hole was drilled to 1155 m before opening to 26" and the 20" casing set at 1146 m. The well was drilled with seawater and hi-vis sweeps down to 310 m, with bentonite mud from 310 m to 1153 m, and with synthetic oil (ester) based "AQUAMUL B II EBM" mud from 1153 m to TD.

Hydrocarbons were encountered in 129m of gross (49m net) sandstone in the JU2 prospect (Eldfisk Fm.), the shallower of the Jurassic prospects. Log evaluation established an Oil-Down-To at 4530 m TVDSS. Mean porosities of 12% and permeability in the range 0.01 to 80 mD were measured from core and log data over the pay zone. The mean reserves for the discovery are estimated at 9.3mmmbbl (1.48mmcum). Two sand intervals of 12.5 and 19m gross thickness were encountered in the JU7 target. The upper interval contained hydrocarbons. A gross sandstone thickness of 46m was encountered in the Early Permian, although no hydrocarbons were present.

A total of seven cores were cut, five in the Jurassic JU2 sandstone (Eldfisk Fm.), one in the Jurassic JU7 sandstone (Eldfisk Fm.) and one in the Permian P2 Rotliegend sandstone. JU2 was cored from 4474 to 4549 m and had moderate to good shows to 4539 m. However, two logging runs with the Schlumberger MDT tool showed the JU2 formation to be generally tight.

JU7 was cored from 4684 to 4703 m and was found to grade to siltstone below 4688 m. Minor shows were present in the sandstone above this depth but from the MDT runs the formation was found to be tight. The Permian P2 Rotliegend sandstone was cored from 4853 m to 4872 m but did not contain hydrocarbons. This formation also proved tight from the second MDT logging run. Two PVT samples and a one-gallon dead-oil sample were obtained in JU2. The one-gallon sample proved to be oil when emptied at well site.

The well was permanently abandoned as an oil discovery on 6 January 1994.

Testing

No drill stem test was performed.



Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	4474.0	4483.6	[m]
2	4483.6	4501.3	[m]
3	4501.3	4519.0	[m]
4	4519.0	4538.0	[m]
5	4538.0	4548.8	[m]
6	4684.1	4703.3	[m]
7	4853.0	4872.0	[m]

Total kjerneprøve lengde [m]	113.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



4474-4479m



4479-4483m



4483-4488m



4488-4493m



4493-4498m



4498-4501m



4501-4506m



4506-4511m



4511-4516m



4516-4519m



4519-4524m



4524-4529m



4529-4534m



4534-4538m



4538-4543m



4543-4548m



4548-4549m



4684-4689m



4689-4694m



4694-4699m



4699-4703m



4853-4858m



4858-4863m



4863-4868m



4868-4872m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
114	NORDLAND GP
1613	HORDALAND GP
2999	ROGALAND GP
2999	BALDER FM
3015	SELE FM
3069	LISTA FM
3112	VÅLE FM
3138	SHETLAND GP
3138	EKOFISK FM
3190	TOR FM
3681	HOD FM
4092	BLODØKS FM
4107	HIDRA FM
4225	CROMER KNOLL GP
4225	RØDBY FM
4228	SOLA FM
4329	ÅSGARD FM
4363	TYNE GP
4363	MANDAL FM
4391	FARSUND FM
4473	ELDFISK FM
4602	FARSUND FM



4658	HAUGESUND FM
4664	ELDFISK FM
4698	HAUGESUND FM
4756	NO FORMAL NAME
4789	NO GROUP DEFINED
4789	SMITH BANK FM
4800	ZECHSTEIN GP
4853	ROTLIEGEND GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
2124	pdf	0.43

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
2124 2 7 29 COMPLETION REPORT AND LOG	pdf	34.83

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CST GR	4225	4371
DIL AS CAL GR	3126	4371
DIL AS GR	71	3133
DIL MSFL GR	4363	4906
DSI LDL CNL GR	4363	4892
MDT GR	4491	4688
MDT GR	4491	4868
MWD	114	308
MWD	309	3130
MWD	3308	3483
MWD - LWD CDR	114	310
MWD - LWD CDR	309	1154
MWD - LWD CDR	3140	3308





MWD - LWD CDR	3483	4900
OBDT GR	4363	4907
VSP	1160	4880

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	302.0	36	310.0	0.00	LOT
SURF.COND.	20	1146.0	26	1155.0	0.00	LOT
INTERM.	13 3/8	3124.0	17 1/2	3130.0	0.00	LOT
INTERM.	9 7/8	4356.0	12 1/4	4366.0	0.00	LOT
OPEN HOLE		4900.0	8 3/8	4900.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
301	1.05			WATER BASED	
308	1.08			WATER BASED	
554	1.11	8.0		WATER BASED	
949	1.81	20.0		WATER BASED	
1148	1.15	5.0		WATER BASED	
1153	1.17	5.0		OIL BASED	
2028	1.60	49.0		OIL BASED	
2259	1.59	48.0		OIL BASED	
2498	1.60	48.0		OIL BASED	
2705	1.59	46.0		OIL BASED	
2812	1.60	47.0		OIL BASED	
3013	1.81	22.0		WATER BASED	
3130	0.00			OIL BASED	
3138	1.62	51.0		OIL BASED	
3308	1.61	44.0		OIL BASED	
3457	1.62	43.0		OIL BASED	
3483	1.62	45.0		OIL BASED	
3738	1.62	50.0		OIL BASED	
3843	1.62	50.0		OIL BASED	
3901	1.62	46.0		OIL BASED	
4009	1.62	47.0		OIL BASED	



4224	1.62	48.0		OIL BASED	
4274	1.81	24.0		WATER BASED	
4291	1.81	61.0		OIL BASED	
4352	1.81	56.0		OIL BASED	
4366	1.81	61.0		OIL BASED	
4366	1.82	50.0		OIL BASED	
4366	1.82	53.0		OIL BASED	
4387	1.82	67.0		OIL BASED	
4395	1.87	67.0		OIL BASED	
4501	1.87	60.0		OIL BASED	
4519	1.87	59.0		OIL BASED	
4574	1.87	59.0		OIL BASED	
4599	1.87	61.0		OIL BASED	
4684	1.87	68.0		OIL BASED	
4703	1.87	62.0		OIL BASED	
4900	1.90	67.0		OIL BASED	

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
4544.00	[m]
4540.65	[m]
4532.00	[m]
4529.65	[m]
4523.30	[m]
4517.65	[m]
4514.00	[m]
4508.85	[m]
4506.00	[m]
4504.05	[m]
4500.80	[m]
4493.35	[m]
4490.70	[m]
4487.85	[m]
4482.65	[m]
4477.65	[m]

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]
2124 Formation pressure (Formasjonstrykk)	pdf	0.22

