



Generell informasjon

Brønnbane navn	7/12-8
Type	EXPLORATION
Formål	APPRAISAL
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	ULA
Funn	7/12-2 Ula
Brønn navn	7/12-8
Seismisk lokalisering	LINE 143 SP 470
Utvinningstillatelse	019
Boreoperatør	BP Norway Limited U.A.
Boretillatelse	590-L
Boreinnretning	VILDKAT EXPLORER
Boredager	81
Borestart	04.10.1988
Boreslutt	23.12.1988
Frigitt dato	23.12.1990
Publiseringsdato	28.03.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	ULA FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	70.0
Totalt målt dybde (MD) [m RKB]	3900.0
Totalt vertikalt dybde (TVD) [m RKB]	3898.0
Maks inklinasjon [°]	5.7
Temperatur ved bunn av brønnbanen [°C]	151
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	SKAGERRAK FM
Geodetisk datum	ED50
NS grader	57° 5' 1.28" N



ØV grader	2° 53' 52.26" E
NS UTM [m]	6326848.38
ØV UTM [m]	493808.24
UTM sone	31
NPDID for brønnbanen	1311

Brønnhistorie

General

Well 7/12-8 was drilled on the south eastern flank of the Ula Field in the North Sea. The well was drilled to evaluate the reservoir potential of the south eastern sector of the Field and to assist target future water injection wells. To enable a full evaluation of the reservoir the lower Ula Formation and the underlying Triassic section were penetrated.

Operations and results

Appraisal well 7/12-8 was spudded with the semi-submersible installation Vildkat Explorer on 3 October 1988 and drilled to TD at 3900 m in the Triassic Skagerrak Formation. Drilling down to top reservoir proceeded without any significant problems. The well was drilled with seawater and bentonite down to 167 m, with seawater/bentonite/spercell/CMC EHV mud from 167 to 955 m, with KCl/polymer mud from 955 m to 3721 m, and with oil based Safemul mud from 3721 m to TD.

Top Mandal Formation was encountered at 3640 m, top Farsund Formation at 3663 m, and top Ula Formation at 3718 m, 78 m higher than prognosed. RFT measurements showed a pressure barrier at ca 3770 m. There was oil down to the barrier and water below. An effective oil/water contact was difficult to identify. The saturation profile across interval 3770 - 3796 is interpreted as water influx from the aquifer following production from the field since 1986. The RFT results supported that the Ula reservoir at the 7/12-8 location was depleted and in pressure communication with the crestal producing part of the Ula Field. There were no signs of hydrocarbons in the underlying Triassic.

One core was cut in the Ula Formation from 3724.0 to 3750.5 m. Segregated RFT fluid samples were taken at 3772 m (water and oil) and 3808.5 m (water and OBM).

The well was suspended on 23 December 1988 as an oil appraisal.

Testing

One Drill Stem Test was performed in the Ula Formation in the interval 3719 to 3756 m flowed 274 Sm³/d of oil and 21800 Sm³/d of gas through a 254 mm choke. The GOR was 79 Sm³/Sm³. Maximum H₂S and CO₂ was 0 ppm and 2.5 %vol, respectively. Final BHT was 146.1 deg C. Two water injection tests followed the production test, the first over interval 3719 m to 3756 m and the second over the interval 3719 to 3783 m.

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Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1500.00	3897.00



Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3724.5	3750.0	[m]

Total kjerneprøve lengde [m]	25.5
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



3724-3729m



3729-3734m



3734-3739m



3739-3744m



3744-3749m



3749-3750m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
95	NORDLAND GP
2757	ROGALAND GP
2757	BALDER FM
2789	SELE FM
2882	LISTA FM
2929	MAUREEN FM
2940	SHETLAND GP
2940	EKOFISK FM



3075	EKOFISK FM
3321	HOD FM
3391	CROMER KNOLL GP
3391	RØDBY FM
3465	ÅSGARD FM
3640	TYNE GP
3640	MANDAL FM
3663	FARSUND FM
3718	VESTLAND GP
3718	ULA FM
3814	HEGRE GP
3814	SKAGERRAK FM

Dokumenter - eldre Sökkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1311_01_WDSS_General_Information	pdf	0.21
1311_02_WDSS_completion_log	pdf	0.25

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1311_7_12_8_COMPLETION_REPORT_AND_LOG	pdf	11.86

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsventil størrelse [mm]
1.0	3719	3783	16.0

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	274	22000			79

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
	0	0
BGL GR	952	2344
BHC GR	3725	3770
CBL VDL GR	1500	3768
CST GR	2350	3721
CST GR	3796	3893
DIL BHC GR	2340	3726
DIL BHC GR	3726	3792
DIL BHC GR	3794	3903
DIL LSS GR	167	350
DIL LSS GR	952	2342
LDL CNL GR	3793	3902
LDL CNL NGL	3716	3794
MWD	3710	3788
NGT	3716	3794
OBT GR	3793	3902
RFTB HP GR	3730	3780
RFTB HP GR	3795	3887
SAT VELOCITY	300	3900

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	167.0	32	171.0	0.00	LOT
SURF.COND.	20	951.0	26	957.0	1.63	LOT
INTERM.	13 3/8	2338.0	17 1/2	2350.0	1.97	LOT
INTERM.	9 5/8	3712.0	12 1/4	3721.0	2.24	LOT
LINER	7	3787.0	8 1/2	3788.0	2.06	LOT
OPEN HOLE		3900.0	6	3900.0	0.00	



Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
559	1.25	22.5	12.0	WATER BASED	11.10.1988
957	1.30	23.5	13.0	WATER BASED	11.10.1988
957	1.30	19.0	9.6	WATER BASED	11.10.1988
957	1.30	18.5	13.4	WATER BASED	11.10.1988
957	1.30	23.5	13.0	WATER BASED	11.10.1988
957	1.30	23.5	13.0	WATER BASED	19.10.1988
957	1.30	24.0	13.4	WATER BASED	19.10.1988
1026	1.42	32.0	10.6	OIL BASED	19.10.1988
1336	1.52	30.0	10.1	OIL BASED	19.10.1988
1484	1.52	42.0	9.6	OIL BASED	19.10.1988
1695	1.52	54.0	16.3	OIL BASED	24.10.1988
1945	1.52	59.5	14.9	OIL BASED	24.10.1988
2050	1.54	57.5	14.9	OIL BASED	24.10.1988
2145	1.54	59.0	14.9	OIL BASED	24.10.1988
2316	1.55	63.0	17.3	OIL BASED	24.10.1988
3341	1.56	44.5	10.1	WATER BASED	11.11.1988
3427	1.56	44.0	10.6	WATER BASED	11.11.1988
3495	6.01	45.5	10.6	WATER BASED	17.11.1988
3567	1.56	44.5	10.6	WATER BASED	17.11.1988
3629	1.58	44.0	10.6	WATER BASED	17.11.1988
3670	1.58	43.5	10.1	WATER BASED	17.11.1988
3709	1.58	44.5	10.1	WATER BASED	17.11.1988
3713	1.58	45.5	10.6	WATER BASED	17.11.1988
3716	1.58	45.0	10.6	WATER BASED	17.11.1988
3717	1.58	45.0	11.5	WATER BASED	21.11.1988
3719	1.58	44.5	12.0	WATER BASED	21.11.1988
3720	1.58	42.5	12.0	WATER BASED	21.11.1988
3721	1.58	41.0	9.6	WATER BASED	22.11.1988
3721	1.58	42.0	11.5	WATER BASED	22.11.1988
3721	1.58	42.0	11.5	WATER BASED	24.11.1988
3721	1.58	46.0	11.5	WATER BASED	25.11.1988
3721	1.58	22.0	24.0	WATER BASED	28.11.1988
3723	0.91	9.6	6.0	WATER BASED	28.11.1988
3751	0.92	9.6	8.0	OIL BASED	28.11.1988
3765	0.93	10.8	9.0	OIL BASED	30.11.1988



3781	0.94	16.0	2.9	WATER BASED	13.12.1988
3781	0.95	20.5	3.8	WATER BASED	16.12.1988
3781	0.95	20.5	3.4	WATER BASED	16.12.1988
3781	0.94	20.0	3.4	WATER BASED	19.12.1988
3781	0.96	19.0	2.9	WATER BASED	19.12.1988
3781	0.95	22.0	3.8	WATER BASED	21.12.1988
3781	0.96	24.0	3.6	WATER BASED	21.12.1988
3781	0.96	22.0	3.4	WATER BASED	21.12.1988
3788	0.94	9.6	8.0	OIL BASED	30.11.1988
3788	0.94	10.8	7.0	OIL BASED	01.12.1988
3788	0.95	11.0	8.0	OIL BASED	02.12.1988
3788	1.40	37.5	5.3	WATER BASED	06.12.1988
3900	1.42	47.5	5.3	WATER BASED	09.12.1988
3900	1.42	47.0	5.8	WATER BASED	09.12.1988
3900	1.40	39.5	5.3	WATER BASED	13.12.1988
3900	0.00	18.0	2.9	WATER BASED	13.12.1988
3900	0.94	18.5	2.4	WATER BASED	13.12.1988
3900	1.40	45.0	5.8	WATER BASED	06.12.1988
3900	1.41	40.0	4.8	WATER BASED	07.12.1988
3900	0.95	13.5	3.4	WATER BASED	13.12.1988

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]
1311 Formation pressure (Formasjonstrykk)	pdf	0.21

