



Generell informasjon

Brønnbane navn	15/12-5
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	VARG
Funn	15/12-4 Varg
Brønn navn	15/12-5
Seismisk lokalisering	ST 8503 - 109 SP. 306
Utvinningstillatelse	038
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	507-L
Boreinnretning	ROSS ISLE
Boredager	54
Borestart	12.03.1986
Boreslutt	04.05.1986
Frigitt dato	04.05.1988
Publiseringsdato	06.01.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	HUGIN FM
Avstand, boredekk - midlere havflate [m]	22.0
Vanndybde ved midlere havflate [m]	84.0
Totalt målt dybde (MD) [m RKB]	3150.0
Totalt vertikalt dybde (TVD) [m RKB]	3149.0
Maks inklinasjon [°]	3.6
Temperatur ved bunn av brønnbanen [°C]	135
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	SKAGERRAK FM
Geodetisk datum	ED50
NS grader	58° 4' 53.36" N



ØV grader	1° 54' 53.24" E
NS UTM [m]	6438443.61
ØV UTM [m]	435998.33
UTM sone	31
NPDID for brønnbanen	113

Brønnhistorie

General

Well 15/12-5 was drilled on the Beta Central structure ca 3.3 km north-east of the 15/12-4 Varg discovery well in the North Sea. Primary objective was the Jurassic sandstones. Secondary objective was the Frigg Formation sand and fractured limestone of Cretaceous age. Seismic anomalies indicated shallow gas. Prognosed TD was 3100 m RKB in sandstone of Triassic age.

Operations and results

Well 15/12-5 was spudded with the semi-submersible installation Ross Isle on 12 March 1986 and drilled to TD at 3150 m in the Late Triassic Skagerrak Formation. No shallow gas was encountered. Drilling proceeded without significant problems. The well was drilled with Spud mud down to 217 m, with gel/seawater/XC-polymer from 217 m to 619 m, with gypsum/polymer mud from 619 m to 2889 m, and with gel/lignosulphonate/lignite from 2889 m to TD.

Top Cretaceous came in at 2457 m, and top Jurassic at 2841 m. Top of the reservoir, an Oxfordian sandstone, was encountered at 2918 m with good shows. The OWC was found at 2942 m, 28 m below that of well 15/12-4. This is probably due to a flow barrier caused by the fault system with a maximum throw of ca 100 m that separates the Beta West and Beta Central structures. Due to FMT pressure measurements and fluid samples, Statoil decided to go for "sole risk" testing, since Esso denied participating in the testing program.

Three cores were cut in the interval 2892 m to 2967 m with 100% recovery. The core-log depth shifts were small, in the range 0.0 to -0.5 m for all three cores. FMT fluid samples were taken at 2919.3 m (oil), 2923.5 m, 2937.0 m (oil), and at 2941.5 m (water mud filtrate and a little oil).

The well was permanently abandoned on 4 May 1986 as an oil appraisal of the Varg Field.

Testing

One DST test was performed in the interval 2926 m to 2936 m. The test produced 520 Sm³ oil and 42000 Sm³ gas /day through a 40/64" choke. The GOR was 81 Sm³/Sm³, oil gravity was 0,909 g/cm³, and the gas gravity was 0.795 (air = 1). The test temperature was 127 °C.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
240.00	3150.00



Borekaks tilgjengelig for prøvetaking?	NO
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2892.0	2904.0	[m]
2	2910.5	2938.5	[m]
3	2939.0	2967.0	[m]

Total kjerneprøve lengde [m]	68.0
Kjerner tilgjengelig for prøvetaking?	YES

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	FMT2	2937.00	2937.00		20.04.1986 - 00:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
106	NORDLAND GP
1024	UTSIRA FM
1247	HORDALAND GP
2276	ROGALAND GP
2276	BALDER FM
2291	SELE FM
2325	LISTA FM
2418	MAUREEN FM
2439	SHETLAND GP
2439	EKOFISK FM
2457	TOR FM
2615	HOD FM
2740	BLODØKS FM
2792	CROMER KNOLL GP



2792	RØDBY FM
2827	SOLA FM
2841	VIKING GP
2841	DRAUPNE FM
2888	HEATHER FM
2918	VESTLAND GP
2918	HUGIN FM
3077	HEGRE GP
3077	SKAGERRAK FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
113 GCH 1	pdf	0.12
113 GCH 2	pdf	4.11
113 GCH 3	pdf	4.17
113 GCH 4	pdf	0.13

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
113 01 WDSS General Information	pdf	0.24
113 02 WDSS completion log	pdf	0.24

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
113 15 12 5 Completion log	pdf	1.67
113 15 12 5 Completion report	pdf	18.98

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2926	2936	15.9





Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 13:27

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningsstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0	33.000	24.000	34.000	

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	560	46000	0.900		81

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
ACBL VDL GR	100	3100
CDL CNL GR CAL	217	3150
COREGUN	2280	2885
COREGUN	2879	3138
DIFL ACL GR SP CAL	217	3150
DIP	2876	3150
FMT	2919	3009
FMT	2933	2950
FMT	2937	0
MLL GR	2875	3134
MWD	106	2883
VSP	285	3150

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	217.0	36	217.0	0.00	LOT
SURF.COND.	20	597.0	26	618.0	1.37	LOT
INTERM.	13 3/8	1608.0	17 1/2	1625.0	1.72	LOT
INTERM.	9 5/8	2875.0	12 1/4	2892.0	2.18	LOT
LINER	7	3149.0	8 1/2	3150.0	0.00	LOT

Boreslam



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 13:27

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
217	1.10		10.0	WATER BASED	17.03.1986
217	1.10	6.0	13.4	WATER BASED	17.03.1986
618	1.16	7.0	17.0	WATER BASED	20.03.1986
698	1.10	52.0	8.0	WATER BASED	24.03.1986
1068	1.10	54.0	8.5	WATER BASED	02.04.1986
1337	1.11	52.0	8.1	WATER BASED	02.04.1986
1600	1.57	20.0	4.3	WATER BASED	02.05.1986
1622	1.18	52.0	9.0	WATER BASED	02.04.1986
1622	1.22	55.8	8.5	WATER BASED	02.04.1986
1768	1.22	60.0	8.6	WATER BASED	02.04.1986
2084	1.27	63.0	8.6	WATER BASED	02.04.1986
2223	1.27	65.0	9.1	WATER BASED	02.04.1986
2341	1.57	60.0	11.0	WATER BASED	03.04.1986
2445	1.57	32.0	10.0	WATER BASED	04.04.1986
2445	1.57	32.0	10.0	WATER BASED	07.04.1986
2570	1.57	31.0	8.6	WATER BASED	07.04.1986
2590	1.57	30.0	8.6	WATER BASED	07.04.1986
2687	1.57	30.0	8.6	WATER BASED	09.04.1986
2735	1.57	33.0	9.1	WATER BASED	09.04.1986
2798	1.57	30.0	8.6	WATER BASED	10.04.1986
2840	1.57	31.0	8.6	WATER BASED	11.04.1986
2876	1.57	30.0	9.1	WATER BASED	14.04.1986
2885	1.35	19.0	6.2	WATER BASED	30.04.1986
2889	1.57	30.0	9.1	WATER BASED	14.04.1986
2889	1.57	28.0	8.6	WATER BASED	14.04.1986
2892	1.35	26.0	7.2	WATER BASED	16.04.1986
2918	1.35	18.0	6.2	WATER BASED	17.04.1986
2965	1.35	17.0	5.3	WATER BASED	18.04.1986
2966	1.35	20.0	6.2	WATER BASED	23.04.1986
3150	1.35	19.0	5.3	WATER BASED	23.04.1986
3150	1.35	19.0	6.2	WATER BASED	25.04.1986

Tynnslip i Sökkeldirektoratet

Dybde	Enhet
2944.30	[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]
113 Formation pressure (Formasjonstrykk)	pdf	0.22

