



Generell informasjon

Brønnbane navn	2/4-14
Type	EXPLORATION
Formål	WILDCAT
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	2/4-14
Brønn navn	2/4-14
Seismisk lokalisering	LINJE NS-5-235 & SP585
Utvinningstillatelse	146
Boreoperatør	Saga Petroleum ASA
Boretillatelse	593-L
Boreinnretning	TREASURE SAGA
Boredager	118
Borestart	06.10.1988
Boreslutt	31.01.1989
Frigitt dato	31.01.1991
Publiseringsdato	13.12.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	EARLY CRETACEOUS
1. nivå med hydrokarboner, formasjon.	MANDAL FM
Avstand, boredekk - midlere havflate [m]	26.0
Vanndybde ved midlere havflate [m]	68.0
Totalt målt dybde (MD) [m RKB]	4734.0
Totalt vertikalt dybde (TVD) [m RKB]	4733.0
Maks inklinasjon [°]	2.2
Temperatur ved bunn av brønnbanen [°C]	150
Eldste penetrerte alder	EARLY CRETACEOUS
Eldste penetrerte formasjon	MANDAL FM
Geodetisk datum	ED50
NS grader	56° 41' 5.26" N
ØV grader	3° 8' 43.08" E



NS UTM [m]	6282449.13
ØV UTM [m]	508901.59
UTM sone	31
NPDID for brønnbanen	1343

Brønnhistorie

General

Well 2/4-14 was designed to drill the same structure on the Steinbit Terrace as well 2/4-13, which was junked on 6 October 1988 due to technical problems. The wells were drilled in the middle of a structural/stratigraphic closure on a rotated fault block. Their primary objectives were to assess the hydrocarbon potential of the main structure in block 2/4. The target was expected Late Jurassic sandstone.

Operations and results

Wildcat well 2/4-14 was spudded with the semi-submersible installation Treasure Saga on 6 October 1988, 53.4 m NNW of the 2/4-13 location. It was drilled to TD at 4734 m in the Late Jurassic Tyne Group. The well was drilled with spud mud and gel down to 916 m, with KCl mud from 916 m to 4453 m, and with Hi Temp Polymer mud from 4453 m to TD.

Drilling went without significant problems down to 3687 m in the 12 1/4" section. On trip out of hole the drill string got stuck with the bit at 3538 m. The pipe could not be freed and a cement plug was set from 3475 m to 3395 m. A technical sidetrack was kicked off from 3415 m to 3463 m. Due to high temperatures the MWD worked only in part, but drilling of the remaining part of the 12 1/4" section to 4453 m proceeded without significant problems. The 8 1/2" hole was drilled to 4713 m where gas cut mud were observed with a maximum gas reading of 68 %. The hole was drilled to 4714 m when the mud weight was increased to 2.10 SG. This mud weight was near the fracture gradient at the casing seat. The equivalent circulating density at the drilling pump rates exceeded the fracture gradient at the casing seat. At 4734 m the well kicked, and gained a total 6.5 m³. The well was shut in and several attempts were made to gain control, without success. Coil tubing was run in to 4691 m and drill pipe circulated to seawater. A 1/2 bbl was taken and the well closed in. Finally, as the drill pipe started to come out of the hole, the shear-rams were activated and the drill pipe was cut on 20 January 1989. The well now developed into an underground blow out. An attempt to bullhead the well was performed, but the kill hose burst at the gooseneck. A new safety plug and no-go cap was entered in the BOP, and annular preventer closed from surface. On 31 January 1989 anchors were pulled and the well was suspended for re-entry with a different rig. Treasure Saga left the location for drilling a relief well ca 1 km to the south (2/4-15 S) to assist in killing operations.

No hydrocarbon bearing intervals were detected above the Mandal Formation at 4708 m. The MWD logs and the cutting descriptions indicated two thin oil bearing sand stringers in the interval from 4708 - 4713.5 m. A third sandstone came in at 4733 m where the well kicked. No cores were cut in this well. The well is classified as a minor discovery.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
2520.00	4729.00

Borekaks tilgjengelig for prøvetaking?	YES
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Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
94	NORDLAND GP
1766	HORDALAND GP
3142	ROGALAND GP
3142	BALDER FM
3162	SELE FM
3176	LISTA FM
3217	VIDAR FM
3262	LISTA FM
3307	VÅLE FM
3318	SHETLAND GP
3318	EKOFISK FM
3443	TOR FM
4010	HOD FM
4542	BLODØKS FM
4561	HIDRA FM
4634	CROMER KNOLL GP
4634	RØDBY FM
4654	ÅSGARD FM
4702	TYNE GP
4702	MANDAL FM
4729	UNDEFINED GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
1343 2 4 14	pdf	0.67





Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1343 2 4 14 COMPLETION LOG	pdf	2.50
1343 2 4 14 COMPLETION REPORT	pdf	18.70

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
ACBL VDL	93	2509
CDL CNL GR	2509	4453
COREGUN	2522	4447
DIPLOG	3000	4452
FMT	3474	3603
LSBHC DDL GR	2509	4449
MWD - GR RES DIR	218	4734
VSP	1685	4450

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	215.0	36	217.0	0.00	LOT
SURF.COND.	20	901.0	26	916.0	1.82	LOT
INTERM.	13 3/8	2509.0	17 1/2	2526.0	2.03	LOT
INTERM.	9 5/8	4437.0	12 1/4	4437.0	2.18	LOT
OPEN HOLE		4734.0	8 1/2	4734.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
213	1.06			WATER BASED	18.10.1988
217	1.06			WATER BASED	18.10.1988
217	1.06	6.0	16.3	WATER BASED	18.10.1988
766	1.16	5.0	14.4	WATER BASED	18.10.1988
916	1.16	4.0	7.7	WATER BASED	18.10.1988
916	1.20	6.0	7.7	WATER BASED	18.10.1988





Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 30.5.2024 - 06:23

916	1.20	12.0	2.4	WATER BASED	18.10.1988
916	1.20			WATER BASED	18.10.1988
931	1.20	13.0	2.9	WATER BASED	18.10.1988
1344	1.33	22.0	5.3	WATER BASED	18.10.1988
1769	1.40	36.0	7.7	WATER BASED	18.10.1988
2123	1.55	32.0	8.7	WATER BASED	19.10.1988
2257	1.55	37.0	6.3	WATER BASED	24.10.1988
2407	1.60	32.0	5.3	WATER BASED	24.10.1988
2526	1.60	22.0	5.8	WATER BASED	24.10.1988
2526	1.60	30.0	6.3	WATER BASED	24.10.1988
2526	1.61	20.0	5.3	WATER BASED	24.10.1988
2526	1.60	30.0	5.8	WATER BASED	24.10.1988
2803	1.61	30.0	7.2	WATER BASED	26.10.1988
3032	1.65	30.0	8.2	WATER BASED	26.10.1988
3060	1.66	27.0	7.7	WATER BASED	28.10.1988
3177	1.65	21.0	4.8	WATER BASED	28.10.1988
3218	1.65	28.0	6.3	WATER BASED	07.11.1988
3273	1.65	34.0	8.7	WATER BASED	07.11.1988
3285	1.65	30.0	6.3	WATER BASED	07.11.1988
3285	1.65	32.0	7.2	WATER BASED	07.11.1988
3312	1.65	31.0	5.8	WATER BASED	07.11.1988
3341	1.65	31.0	5.3	WATER BASED	07.11.1988
3388	1.65	26.0	5.8	WATER BASED	07.11.1988
3421	1.65	26.0	5.8	WATER BASED	07.11.1988
3423	1.68	25.0	4.8	WATER BASED	24.11.1988
3441	1.65	27.0	5.8	WATER BASED	07.11.1988
3444	1.68	21.0	3.4	WATER BASED	24.11.1988
3464	1.68	22.0	5.3	WATER BASED	25.11.1988
3523	1.65	27.0	6.8	WATER BASED	07.11.1988
3561	1.68	21.0	4.8	WATER BASED	25.11.1988
3622	1.68	30.0	5.8	WATER BASED	28.11.1988
3660	1.68	26.0	6.8	WATER BASED	28.11.1988
3687	1.65	30.0	7.7	WATER BASED	11.11.1988
3687	1.65	36.0	8.7	WATER BASED	11.11.1988
3687	1.65	20.0	3.9	WATER BASED	14.11.1988
3687	1.65	23.0	4.4	WATER BASED	14.11.1988
3687	1.65	20.0	3.9	WATER BASED	15.11.1988
3687	1.65	20.0	3.4	WATER BASED	17.11.1988
3687	1.65	28.0	4.8	WATER BASED	24.11.1988
3687	1.68	22.0	4.8	WATER BASED	24.11.1988



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 30.5.2024 - 06:23

3687	1.65	25.0	4.8	WATER BASED	14.11.1988
3687	1.65	20.0	3.4	WATER BASED	16.11.1988
3687	1.65	20.0	4.8	WATER BASED	18.11.1988
3716	1.68	25.0	7.2	WATER BASED	28.11.1988
3745	1.68	26.0	5.8	WATER BASED	29.11.1988
3773	1.68	24.0	6.8	WATER BASED	30.11.1988
3810	1.68	21.0	6.8	WATER BASED	01.12.1988
3911	1.68	23.0	6.8	WATER BASED	05.12.1988
3949	1.68	23.0	5.8	WATER BASED	05.12.1988
3990	1.68	22.0	4.8	WATER BASED	05.12.1988
4037	1.68	22.0	4.8	WATER BASED	07.12.1988
4048	1.68	22.0	4.8	WATER BASED	07.12.1988
4087	1.68	21.0	6.3	WATER BASED	08.12.1988
4153	1.68	19.0	7.2	WATER BASED	12.12.1988
4205	1.68	22.0	6.3	WATER BASED	12.12.1988
4262	1.68	23.0	5.8	WATER BASED	12.12.1988
4316	1.68	23.0	5.3	WATER BASED	12.12.1988
4366	1.72	24.0	7.2	WATER BASED	13.12.1988
4415	1.72	26.0	11.5	WATER BASED	14.12.1988
4453	1.72	21.0	4.4	WATER BASED	20.12.1988
4453	1.72	22.0	3.4	WATER BASED	22.12.1988
4453	1.72	16.0	2.0	WATER BASED	27.12.1988
4453	1.72	17.0	2.4	WATER BASED	27.12.1988
4453	1.72	19.0	5.3	WATER BASED	19.12.1988
4453	1.72	23.0	4.8	WATER BASED	19.12.1988
4453	1.72	20.0	3.4	WATER BASED	20.12.1988
4453	1.72	21.0	3.9	WATER BASED	20.12.1988
4453	1.72	22.0	3.4	WATER BASED	21.12.1988
4453	1.72	22.0	3.4	WATER BASED	27.12.1988
4453	1.72	14.0	2.9	WATER BASED	03.01.1989
4453	1.72	16.0	2.4	WATER BASED	03.01.1989
4453	1.72	20.0	3.9	WATER BASED	03.01.1989
4485	1.72	19.0	3.4	WATER BASED	03.01.1989
4505	1.72	21.0	4.4	WATER BASED	05.01.1989
4561	1.72	18.0	4.4	WATER BASED	09.01.1989
4586	1.72	17.0	3.9	WATER BASED	09.01.1989
4645	1.93	21.0	5.8	WATER BASED	09.01.1989
4650	2.00	21.0	2.9	WATER BASED	09.01.1989
4695	2.08	24.0	3.9	WATER BASED	09.01.1989
4714	2.10	24.0	5.3	WATER BASED	10.01.1989



4720	2.09	23.0	3.4	WATER BASED	11.01.1989
4733	2.12	26.0	4.4	WATER BASED	24.01.1989
4734	2.12	40.0	7.7	WATER BASED	17.01.1989
4734	2.12	24.0	2.4	WATER BASED	18.01.1989
4734	2.12	24.0	2.4	WATER BASED	19.01.1989
4734	2.09	23.0	3.9	WATER BASED	13.01.1989
4734	2.12	43.0	9.6	WATER BASED	17.01.1989
4734	2.12	24.0	2.4	WATER BASED	17.01.1989
4734	2.12	24.0	2.4	WATER BASED	20.01.1989
4734	2.12			WATER BASED	24.01.1989
4734	2.12	26.0	4.4	WATER BASED	24.01.1989
4734	2.12			WATER BASED	25.01.1989

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]
1343 Formation pressure (Formasjonstrykk)	pdf	0.22

