

**General information**

Wellbore name	34/7-29 SR
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	34/7-29 S
Well name	34/7-29
Seismic location	CMT-94R95: ROW 2038 & COLUMN 993
Production licence	089
Drilling operator	Saga Petroleum ASA
Drill permit	923-L2
Drilling facility	DEEPSEA BERGEN
Drilling days	28
Entered date	18.02.1999
Completed date	17.03.1999
Plugged and abandon date	17.03.1999
Release date	17.03.2001
Publication date	11.04.2003
Purpose - planned	WILDCAT
Reentry	YES
Reentry activity	TESTING
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA DRAUPNE FM SS
Kelly bushing elevation [m]	23.0
Water depth [m]	250.0
Total depth (MD) [m RKB]	2926.0
Final vertical depth (TVD) [m RKB]	2846.0
Maximum inclination [°]	20.7
Bottom hole temperature [°C]	100
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	TARBERT FM
Geodetic datum	
NS degrees	61° 21' 51.69" N
EW degrees	2° 2' 23.37" E



NS UTM [m]	6803911.99
EW UTM [m]	448662.75
UTM zone	31
NPDID wellbore	3702

Wellbore history



General

Exploration well 34/7-29 S was drilled in the west central part of block 34/7 on the H-North prospect. The H-North prospect was located SSE of the Vigdis field and NE of the Statfjord East field. The main objective of well 34/7-29 S was to test a northerly extension of the oil bearing Upper Jurassic Top Draupne Sands penetrated in wells 34/7-21, 21 A, 23 S & 23 A. The well was designed to test the presence of reservoir, hydrocarbons and pressure communication with the other H-Area segments. Reservoir presence was considered the primary risk. Seismic interpretation of the reservoir interval indicated communication with the H-West area, and pressure, sample and DST data were considered important to test this interpretation. In addition the well was to test for the presence of sands and possible hydrocarbons in the Middle and Lower Draupne Formation. Secondary objectives were to test the lithology and depositional model of the Palaeocene Lista Formation and tie the Top Brent seismic marker.

Operations and results

Exploration well 34/7-29 S was spudded with the semi-submersible installation "Transocean Leader" on 4 March 1998 and drilled and cored to TD at 2927 m (2848 m TVD RKB) in the 8 1/2" hole section 30 m into the Middle Jurassic Brent Group. A 7" liner was set and cemented. The well was drilled with Sea water and bentonite sweeps down to 1211 m and with "AQUACOL D" KCI / Glycol mud from 1211 m to 2558 m, and with "ANTISOL D" PAC mud from 2558 m to TD. Due to the presence of hydrocarbons and the requirement for the rig to go on contract for Norsk Hydro, the well was suspended on 14 April 1998 as an oil discovery. The semi-submersible drilling installation "Deepsea Bergen" re-entered well 34/7-29 S R on 22 February 1999 for testing.

In the Nordland, Hordaland and Rogaland Groups the well penetrated mainly clay/claystones with some beds of sand. The Heimdal equivalent Member between 1928 -1999 m (1864 -1933 m TVD RKB) contained thick water wet sands. In the Shetland Group claystones and limestone beds were penetrated. The condensed Cromer Knoll Group consisted of marls, limestones and minor claystones. Core point was reached in the Cromer Knoll Group at 2701 m. The first core (2701 - 2718 m) penetrated the top of the Top intra Draupne Sand at 2705 m (2627 m TVD RKB) and contained oil bearing sands at the base. A second core was cut from 2718 to 2726 m from within the intra Draupne Sands and into the Draupne Shale. In total 17,7 m of sands were penetrated. MDT pressure samples acquired during logging indicated that the sands were all oil bearing and oil down to (ODT) of 2723 m (2622 m TVD MSL) was proved. No sands were penetrated within the Draupne Shale. Fluid samples proved the reservoir fluid to be undersaturated oil. The fluid samples were taken during the MDT run, using the Pump-Out module in combination with the Optical Fluid Analyser to limit contamination of mud filtrate. All fluid samples were taken at 2706.5 m. The quality of the samples and analyses was assumed to be good, because no significant differences were observed between the experimental results. Well 34/7-29 S R was permanently abandoned as an oil discovery on 17 March 1999.

Testing

One zone in the intra Draupne Sandstone was tested, from 2704 - 2716 m. After clean-up pressure build-up period of 6.2 hours, the well was opened on a 6,4 mm (16/64") adjustable choke, for the main flow, through the heater. The choke size was increased in steps to 17,5 mm (44/64") fixed choke in about 1.5 hours. The flow was directed through the separator 0.75 hours after the well was opened. The main flow had a duration of 72 hours during which the oil rate decreased gradually from 920 Sm³/d to 875 m³/d. The wellhead pressure decreased from 84.0 bars to 80.6 bars during the same period. Final gas rate was 120000 m³/day, giving a GOR of 137 m³/m³. The oil density was 0.842 g/cm³. Bottom hole sampling after flowing was cancelled.

**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
273	NORDLAND GP
1075	UTSIRA FM
1082	HORDALAND GP
1282	NO FORMAL NAME
1334	NO FORMAL NAME
1397	NO FORMAL NAME
1446	NO FORMAL NAME
1747	ROGALAND GP
1747	BALDER FM
1813	LISTA FM
1927	NO FORMAL NAME
1998	SHETLAND GP
1998	JORSALFARE FM
2259	KYRRE FM
2692	CROMER KNOLL GP
2692	RØDBY FM
2700	MIME FM
2705	VIKING GP
2705	INTRA DRAUPNE FM SS
2722	DRAUPNE FM
2773	HEATHER FM
2893	BRENT GP
2893	TARBERT FM

Geochemical information

Document name	Document format	Document size [MB]
3702_1	pdf	1.81
3702_2	pdf	1.96
3702_3	pdf	0.21

Documents - reported by the production licence (period for duty of secrecy expired)





Document name	Document format	Document size [MB]
3702_34_7_29_SR_COMPLETION_REPORT	.pdf	35.13

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2704	2716	17.5

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	8.150			94

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	863	119520	0.842		138

