

**General information**

Wellbore name	30/9-7
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	OSEBERG SØR
Discovery	30/9-7 Oseberg Sør
Well name	30/9-7
Seismic location	NH 8502 RAD 395 KOLONNE 728
Production licence	104
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	592-L
Drilling facility	POLAR PIONEER
Drilling days	52
Entered date	02.11.1988
Completed date	23.12.1988
Release date	23.12.1990
Publication date	12.01.2015
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	23.0
Water depth [m]	98.0
Total depth (MD) [m RKB]	3565.0
Final vertical depth (TVD) [m RKB]	3563.0
Maximum inclination [°]	4.7
Bottom hole temperature [°C]	146
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	NANSEN FM
Geodetic datum	ED50
NS degrees	60° 25' 4.76" N
EW degrees	2° 45' 7" E
NS UTM [m]	6698146.38
EW UTM [m]	486338.28



UTM zone	31
NPDID wellbore	1306

Wellbore history

General

Well 30/9-7 was drilled on the B-prospect in the Oseberg South area. The prospect is an easterly tilted fault block, separated from the Omega structure by a NNW-SSE trending normal fault. The objective was to prove oil in the Brent Group sandstones and define an oil/water contact.

Operations and results

Wildcat well 30/9-7 was spudded with the semi-submersible installation Polar Pioneer on 2 November 1988 and drilled to TD at 3565 m in the Early Jurassic Nansen Formation. No significant problem was encountered in the operations. The well was drilled with spud mud down to 1072 m and KCl/polymer mud from 1072 m to TD.

Well 30/9-7 encountered oil in the Brent Group, Tarbert Formation. No additional hydrocarbon bearing intervals were found. The Tarbert Formation (2810 - 2903 m) was oil bearing down to 2827 m (OWC from RFT). The net pay was estimated to be 13.6 m and average water saturation calculated to 37.9%. Average porosity was 21.2%. RFT results showed no pressure communication with well 30/9-4 in the Omega structure within the Tarbert Formation. Some oil shows were described in thin sandstone stringers at the base of the Våle Formation and down into limestones in the uppermost Shetland Group (2375 m to 2382 m). Below OWC in the Tarbert Formation, sandstones had no to weak petroleum odour and cut fluorescence down to 2880 m and brown dead oil stain and weak cut fluorescence down to 2885 m.

Two cores were cut in the Tarbert Formation from 2832 m to 2888 m. RFT fluid samples were taken at 2818.2 m (oil, water and filtrate) and at 2828.6 m (water and filtrate).

The well was suspended on 23 December 1988. It was permanently plugged and abandoned on 7 August 2003. It is classified as an oil discovery.

Testing

One production test was performed in the interval 2811.0 - 2822.0 m in the Tarbert Formation. The test produced on average 540 Sm³ oil and 75600 Sm³ gas /day on a 12.7 mm choke. The GOR was 140 Sm³/Sm³, the oil density was 0.849 g/cc and the gas gravity 0.693 (air-1). The bottom hole temperature measured at 2759.7 m was 108.0 °C. The well produced 1% CO₂ and no H₂S.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1080.00	3465.00

Cuttings available for sampling?	YES
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**Cores at the Norwegian Offshore Directorate**

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2832.0	2857.8	[m]
2	2860.0	2887.0	[m]

Total core sample length [m]	52.8
Cores available for sampling?	YES

Core photos

2832-2837m



2837-2842m



2842-2847m

High: 2847-
2852mLow: 2847-
2852m

2852-2857m



2857-2858m



2860-2865m



2865-2870m



2970-2875m



2875-2880m



2880-2885m



2885-2887m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2100.0	[m]	DC	STRAT
2110.0	[m]	DC	STRAT
2120.0	[m]	DC	STRAT



2130.0	[m]	DC	STRAT
2140.0	[m]	DC	STRAT
2150.0	[m]	DC	STRAT
2160.0	[m]	DC	STRAT
2170.0	[m]	DC	STRAT
2180.0	[m]	DC	STRAT
2190.0	[m]	DC	STRAT
2200.0	[m]	DC	STRAT
2210.0	[m]	DC	STRAT
2220.0	[m]	DC	STRAT
2230.0	[m]	DC	STRAT
2240.0	[m]	DC	STRAT
2250.0	[m]	DC	STRAT
2260.0	[m]	DC	STRAT
2270.0	[m]	DC	STRAT
2280.0	[m]	DC	STRAT
2290.0	[m]	DC	STRAT
2300.0	[m]	DC	STRAT
2310.0	[m]	DC	STRAT
2320.0	[m]	DC	STRAT
2330.0	[m]	DC	STRAT
2340.0	[m]	DC	STRAT
2350.0	[m]	DC	STRAT
2360.0	[m]	DC	STRAT
2370.0	[m]	DC	STRAT
2380.0	[m]	DC	STRAT
2390.0	[m]	DC	STRAT
2400.0	[m]	DC	STRAT
2420.0	[m]	DC	STRAT
2440.0	[m]	DC	STRAT
2460.0	[m]	DC	STRAT
2480.0	[m]	DC	STRAT
2500.0	[m]	DC	STRAT
2520.0	[m]	DC	STRAT
2540.0	[m]	DC	STRAT
2560.0	[m]	DC	STRAT
2580.0	[m]	DC	STRAT
2600.0	[m]	DC	STRAT
2625.0	[m]	DC	STRAT
2640.0	[m]	DC	STRAT



2680.0	[m]	DC	STRAT
2700.0	[m]	DC	STRAT
2715.0	[m]	DC	STRAT
2735.0	[m]	DC	STRAT
2755.0	[m]	DC	STRAT
2775.0	[m]	SWC	HYDRO
2783.0	[m]	SWC	HYDRO
2787.5	[m]	SWC	HYDRO
2792.5	[m]	SWC	HYDRO
2795.0	[m]	SWC	HYDRO
2798.0	[m]	SWC	HYDRO
2800.0	[m]	SWC	HYDRO
2805.0	[m]	SWC	HYDRO
2810.0	[m]	SWC	HYDRO
2812.5	[m]	SWC	HYDRO
2813.0	[m]	SWC	HYDRO
2818.0	[m]	SWC	HYDRO
2822.5	[m]	SWC	HYDRO
2827.0	[m]	SWC	HYDRO
2833.0	[m]	SWC	HYDRO
2835.4	[m]	C	HYDRO
2840.5	[m]	C	HYDRO
2845.3	[m]	C	HYDRO
2850.3	[m]	C	HYDRO
2857.0	[m]	C	HYDRO
2866.5	[m]	C	HYDRO
2874.5	[m]	C	HYDRO
2879.5	[m]	C	HYDRO
2895.0	[m]	SWC	HYDRO
2907.0	[m]	SWC	HYDRO
2915.0	[m]	DC	STRAT
2923.0	[m]	SWC	HYDRO
2932.0	[m]	DC	STRAT
2941.0	[m]	SWC	HYDRO
2953.0	[m]	SWC	HYDRO
2964.0	[m]	SWC	HYDRO
2972.0	[m]	DC	STRAT
2978.0	[m]	SWC	HYDRO
2986.0	[m]	SWC	HYDRO
2995.0	[m]	DC	STRAT



3005.0	[m]	DC	STRAT
3015.0	[m]	DC	STRAT
3022.0	[m]	SWC	HYDRO
3025.0	[m]	DC	STRAT
3032.0	[m]	DC	STRAT
3033.0	[m]	SWC	HYDRO
3054.0	[m]	SWC	HYDRO
3062.0	[m]	DC	STRAT
3072.0	[m]	DC	STRAT
3087.0	[m]	SWC	HYDRO
3092.0	[m]	DC	STRAT
3102.0	[m]	DC	STRAT
3112.0	[m]	SWC	HYDRO
3120.0	[m]	SWC	HYDRO
3130.0	[m]	SWC	HYDRO
3140.0	[m]	DC	STRAT
3150.0	[m]	DC	STRAT
3160.0	[m]	SWC	HYDRO
3169.0	[m]	SWC	HYDRO
3180.0	[m]	SWC	HYDRO
3195.0	[m]	SWC	HYDRO
3202.0	[m]	DC	STRAT
3212.0	[m]	DC	STRAT
3220.0	[m]	SWC	HYDRO
3230.0	[m]	DC	STRAT
3240.0	[m]	SWC	HYDRO
3250.0	[m]	DC	STRAT
3260.0	[m]	DC	STRAT
3270.0	[m]	SWC	HYDRO
3280.0	[m]	DC	STRAT
3290.0	[m]	DC	STRAT
3300.0	[m]	SWC	HYDRO
3310.0	[m]	DC	STRAT
3320.0	[m]	DC	STRAT
3330.0	[m]	DC	STRAT
3337.0	[m]	DC	STRAT
3347.0	[m]	DC	STRAT
3357.0	[m]	DC	STRAT
3365.0	[m]	SWC	HYDRO
3372.0	[m]	DC	STRAT



3382.0	[m]	DC	STRAT
3390.0	[m]	SWC	HYDRO
3397.0	[m]	DC	STRAT
3405.0	[m]	SWC	HYDRO
3415.0	[m]	DC	STRAT
3425.0	[m]	DC	STRAT
3435.0	[m]	SWC	HYDRO
3442.0	[m]	DC	STRAT
3450.0	[m]	DC	STRAT
3457.0	[m]	SWC	HYDRO
3465.0	[m]	DC	STRAT
3475.0	[m]	DC	STRAT
3480.0	[m]	SWC	HYDRO
3490.0	[m]	DC	STRAT
3500.0	[m]	DC	STRAT
3510.0	[m]	DC	STRAT
3520.0	[m]	DC	STRAT
3530.0	[m]	DC	STRAT
3540.0	[m]	DC	STRAT
3550.0	[m]	DC	STRAT

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST	TEST1	2811.00	2822.00		01.01.1989 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
121	NORDLAND GP
615	UTSIRA FM
911	HORDALAND GP
911	NO FORMAL NAME
2082	ROGALAND GP
2082	BALDER FM
2150	SELE FM



2214	LISTA FM
2318	VÅLE FM
2380	SHETLAND GP
2380	HARDRÅDE FM
2613	KYRRE FM
2768	CROMER KNOLL GP
2768	RØDBY FM
2791	VIKING GP
2791	DRAUPNE FM
2805	HEATHER FM
2810	BRENT GP
2810	TARBERT FM
2903	NESS FM
3093	ETIVE FM
3110	RANNOCH FM
3137	OSEBERG FM
3168	DUNLIN GP
3168	DRAKE FM
3288	COOK FM
3387	BURTON FM
3426	AMUNDSEN FM
3535	STATFJORD GP
3535	NANSEN FM

Geochemical information

Document name	Document format	Document size [MB]
1306_GCH_1	pdf	0.20
1306_GCH_2	pdf	3.60

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
1306_01_WDSS_General_Information	pdf	0.22
1306_02_WDSS_completion_log	pdf	0.26



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

Document name	Document format	Document size [MB]
1306_30_9_7_Completion_log	pdf	5.45
1306_30_9_7_Completion_report	pdf	15.22

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2811	2822	12.7

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

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	540	75600	0.849	0.693	140

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	2230	2755
CBL VDL	2690	2850
CST	2775	3480
DIL LSS GR SP	2755	3567
DIL LSS LDL CNL GR SP	1055	2769
DLL MSFL GR	2755	3190
FEWD	2817	3106
LDL CNL NGT CAL	2755	3565
MWD	121	2770
RFT HP AMS	2812	3167
SHDT	2350	2768
VSP	1100	3290
VSP	1100	2870



**Casing and leak-off tests**

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	207.0	36	207.0	0.00	LOT
INTERM.	13 3/8	1057.0	17 1/2	1072.0	1.68	LOT
INTERM.	9 5/8	2756.0	12 1/4	2770.0	1.50	LOT
LINER	7	2953.0	8 1/2	3565.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
350	1.25	11.0	5.0	WATER BASED	22.12.1988
350	1.25	11.0	5.0	WATER BASED	23.12.1988
350	1.25	11.0	5.0	WATER BASED	28.12.1988
638	1.05	1.0	1.0	WATER BASED	07.11.1988
1072	1.05	1.0	1.0	WATER BASED	07.11.1988
1072	1.20	12.0	5.0	WATER BASED	10.11.1988
1329	1.45	19.0	9.0	WATER BASED	10.11.1988
1334	1.45	20.0	8.0	WATER BASED	11.11.1988
1675	1.45	21.0	10.0	WATER BASED	14.11.1988
1964	1.45	24.0	10.0	WATER BASED	15.11.1988
2252	1.45	25.0	9.0	WATER BASED	15.11.1988
2356	1.45	25.0	7.0	WATER BASED	15.11.1988
2386	1.45	20.0	6.0	WATER BASED	15.11.1988
2433	1.45	22.0	6.0	WATER BASED	16.11.1988
2525	1.45	23.0	6.0	WATER BASED	17.11.1988
2555	1.25	11.0	5.0	WATER BASED	21.12.1988
2589	1.45	20.0	6.0	WATER BASED	18.11.1988
2639	1.45	23.0	6.0	WATER BASED	21.11.1988
2712	1.45	21.0	6.0	WATER BASED	21.11.1988
2745	1.45	22.0	5.0	WATER BASED	21.11.1988
2770	1.45	21.0	6.0	WATER BASED	22.11.1988
2770	1.45	21.0	7.0	WATER BASED	24.11.1988
2770	1.26	16.0	6.0	WATER BASED	29.11.1988
2817	1.25	22.0	8.0	WATER BASED	29.11.1988
2832	1.25	11.0	9.0	WATER BASED	29.11.1988
2860	1.25	11.0	9.0	WATER BASED	29.11.1988
2888	1.25	11.0	5.0	WATER BASED	13.12.1988



2888	1.25	11.0	5.0	WATER BASED	14.12.1988
2888	1.25	11.0	5.0	WATER BASED	15.12.1988
2888	1.25	11.0	5.0	WATER BASED	16.12.1988
2888	1.25	11.0	5.0	WATER BASED	19.12.1988
2888	1.25	11.0	5.0	WATER BASED	20.12.1988
2890	1.25	11.0	9.0	WATER BASED	29.11.1988
2955	1.25	11.0	5.0	WATER BASED	12.12.1988
2977	1.25	11.0	10.0	WATER BASED	30.11.1988
3038	1.25	12.0	12.0	WATER BASED	01.12.1988
3106	1.25	14.0	10.0	WATER BASED	02.12.1988
3190	1.25	12.0	9.0	WATER BASED	05.12.1988
3242	1.25	13.0	9.0	WATER BASED	05.12.1988
3320	1.26	10.0	6.0	WATER BASED	12.12.1988
3373	1.25	13.0	8.0	WATER BASED	05.12.1988
3480	1.25	14.0	7.0	WATER BASED	06.12.1988
3565	1.25	12.0	5.0	WATER BASED	09.12.1988
3565	1.26	12.0	5.0	WATER BASED	12.12.1988
3565	1.25	11.0	5.0	WATER BASED	07.12.1988
3565	1.25	12.0	5.0	WATER BASED	08.12.1988

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
1306 Formation pressure (Formasjonstrykk)	pdf	0.22

