

**General information**

Wellbore name	33/9-3
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	STATFJORD
Discovery	33/12-1 Statfjord
Well name	33/9-3
Seismic location	LINE MNG-20 SP.340
Production licence	037
Drilling operator	Mobil Exploration Norway INC
Drill permit	117-L
Drilling facility	NORSKALD
Drilling days	61
Entered date	15.09.1974
Completed date	14.11.1974
Release date	14.11.1976
Publication date	12.04.2016
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
Kelly bushing elevation [m]	25.0
Water depth [m]	146.0
Total depth (MD) [m RKB]	2992.0
Bottom hole temperature [°C]	86
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	STATFJORD GP
Geodetic datum	ED50
NS degrees	61° 17' 55.13" N
EW degrees	1° 53' 39.94" E
NS UTM [m]	6796715.85
EW UTM [m]	440765.42
UTM zone	31
NPDID wellbore	125



Wellbore history

General

Well 33/9-3 was drilled on the Statfjord structure on Tampen Spur in the northern North Sea, as a replacement well for the junk well 33/9-2. The primary objective was to provide seismic velocity control for detailed field mapping and to provide additional reservoir data for the Statfjord Field development.

Operations and results

Wildcat well 33/9-3 was spudded with the semi-submersible installation Norskald on 15 September 1974 and drilled to TD at 2992 m in Late Triassic sediments of the Statfjord Group.

The target reservoir Brent Group was encountered at 2411 m. It contained oil all through down to top Dunlin Group at 2599 m. The base of the reservoir was encountered above the oil water contact. The reservoir quality was excellent with average measured core porosity of 29% and measured permeabilities up to 7.7 Darcy.

A total of 152 m core was recovered in 13 cores from the interval 2422.9 m to 2622.2 m in the reservoir section. Total core recovery was 76.1%. Six FIT fluid samples were taken at 2419 m (35.4 °API oil and mud filtrate), 2455 m (38.4 °API oil and mud filtrate), 2422 m (36.4 °API oil, gas and mud), 2423 m (36.6 °API oil and gas), 2534 m (35.6 °API oil and mud filtrate), and 2595 m (water, mud filtrate and trace oil).

The well was permanently abandoned on 14 November as an oil appraisal well.

Testing

A DST over the interval 2479 to 2481 m did not produce fluids due to tool failure.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
2319.53	2987.00

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	7940.0	7960.0	[ft]
2	8000.0	8006.0	[ft]
3	8014.0	8048.0	[ft]
4	8051.0	8109.0	[ft]



5	8109.0	8135.0	[ft]
6	8164.0	8224.0	[ft]
7	8224.0	8246.6	[ft]
8	8261.0	8309.0	[ft]
9	8321.0	8346.3	[ft]
10	8381.0	8432.0	[ft]
11	8441.0	8498.0	[ft]
12	8498.0	8555.0	[ft]
13	8556.0	8596.3	[ft]

Total core sample length [m]	154.0
Cores available for sampling?	YES

Core photos

7940-7950ft



7950-7960ft



8000-8006ft



8019-8118ft



8034-8046ft



8046-8048ft



8051-8060ft



8060-8069ft



8069-8078ft



8078-8087ft



8087-8096ft



8096-8105ft



8105-8109ft



8118-8127ft



8127-8135ft



8135-8144ft



8144-8153ft



8153-8162ft



8162-8171ft



8171-8180ft



8164-8173ft



8224-8233ft

8191-8201ft



8233-8242ft

8201-8210ft



8242-8246ft

8210-8219ft



8261-8270ft

8219-8224ft



8270-8279ft



8279-8288ft



8288-8297ft



8297-8306ft



8306-8309ft



8321-8330ft



8330-8339ft



8339-8346ft



8381-8390ft



8390-8399ft



8399-8408ft



8408-8416ft



8416-8425ft



8425-8432ft



8441-8450ft



8450-8459ft



8459-8468ft



8468-8477ft



8477-8487ft



8487-8496ft



8496-8498ft





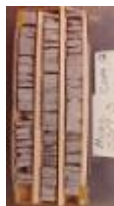
8498-8507ft

8507-8516ft

8516-8525ft

8525-8534ft

8534-8543ft



8543-8552ft



8552-8555ft



8555-8565ft



8565-8574ft



8565-8592ft



8574-8583ft



8592-8596ft

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
7850.0	[ft]	DC	RRI
7860.0	[ft]	DC	RRI
7870.0	[ft]	DC	RRI
7880.0	[ft]	DC	RRI
7890.0	[ft]	DC	RRI
7900.0	[ft]	DC	RRI
7910.0	[ft]	DC	RRI
7920.0	[ft]	DC	RRI
7945.0	[ft]	DC	OD
7945.0	[ft]	C	LAP
7948.0	[ft]	DC	RRI
8000.5	[ft]	C	RRI
8001.0	[ft]	C	RRI
8044.5	[ft]	C	RRI
8045.0	[ft]	C	RRI
8046.0	[ft]	C	RRI
8046.0	[ft]	DC	RRI
8051.5	[ft]	C	RRI
8052.0	[ft]	C	GEOSTR
8056.0	[ft]	C	GEOSTR
8059.0	[ft]	DC	RRI



8059.0 [ft]	C	RRI
8060.0 [ft]	C	GEOSTR
8078.0 [ft]	DC	RRI
8080.0 [ft]	C	GEOSTR
8082.0 [ft]	C	RRI
8084.0 [ft]	C	GEOSTR
8086.0 [ft]	DC	RRI
8093.0 [ft]	DC	RRI
8093.0 [ft]	C	GEOSTR
8097.0 [ft]	DC	RRI
8098.0 [ft]	C	RRI
8101.0 [ft]	DC	RRI
8102.0 [ft]	C	GEOSTR
8104.0 [ft]	C	GEOSTR
8110.0 [ft]	C	GEOSTR
8115.0 [ft]	C	GEOSTR
8118.0 [ft]	C	GEOSTR
8119.0 [ft]	C	RRI
8121.0 [ft]	C	GEOSTR
8127.0 [ft]	C	GEOSTR
8128.0 [ft]	C	RRI
8135.0 [ft]	C	GEOSTR
8164.0 [ft]	C	GEOSTR
8164.5 [ft]	C	GEOSTR
8166.0 [ft]	C	RRI
8166.5 [ft]	C	RRI
8175.0 [ft]	DC	RRI
8176.0 [ft]	C	GEOSTR
8182.0 [ft]	C	GEOSTR
8182.5 [ft]	C	RRI
8187.0 [ft]	DC	RRI
8188.0 [ft]	C	GEOSTR
8191.0 [ft]	C	GEOSTR
8198.0 [ft]	DC	RRI
8200.0 [ft]	C	RRI
8201.0 [ft]	C	GEOSTR
8218.0 [ft]	C	RRI
8219.5 [ft]	C	RRI
8220.0 [ft]	C	GEOSTR
8233.0 [ft]	DC	RRI



8235.0 [ft]	C	RRI
8236.0 [ft]	C	GEOSTR
8237.0 [ft]	C	RRI
8244.5 [ft]	C	RRI
8245.5 [ft]	C	RRI
8246.0 [ft]	C	GEOSTR
8262.0 [ft]	C	RRI
8262.3 [ft]	C	RRI
8286.0 [ft]	C	RRI
8333.0 [ft]	C	RRI
8334.0 [ft]	C	RRI
8524.0 [ft]	C	RRI
8538.0 [ft]	C	RRI
8540.0 [ft]	C	RRI
8550.0 [ft]	C	RRI
8551.0 [ft]	C	RRI
8553.0 [ft]	C	RRI
8554.5 [ft]	C	RRI
8557.0 [ft]	C	RRI
8558.0 [ft]	C	RRI
8559.0 [ft]	C	RRI
8561.4 [ft]	C	RRI
8570.0 [ft]	C	RRI
8582.0 [ft]	C	RRI
8593.0 [ft]	C	RRI
8595.0 [ft]	C	RRI
8600.0 [ft]	C	RRI
8610.0 [ft]	C	RRI
8650.0 [ft]	C	RRI
8660.0 [ft]	DC	RRI
8690.0 [ft]	C	RRI
8710.0 [ft]	DC	RRI
8730.0 [ft]	C	RRI
8770.0 [ft]	C	RRI
8770.0 [ft]	DC	RRI
8802.0 [ft]	DC	OD
8802.0 [ft]	C	LAP
8810.0 [ft]	C	RRI
8850.0 [ft]	C	RRI
8850.0 [ft]	DC	RRI



8890.0	[ft]	DC	RRI
8930.0	[ft]	C	RRI
8930.0	[ft]	DC	RRI
8970.0	[ft]	C	RRI
9010.0	[ft]	C	RRI
9010.0	[ft]	DC	RRI
9050.0	[ft]	C	RRI
9090.0	[ft]	C	RRI
9110.0	[ft]	DC	RRI
9130.0	[ft]	C	RRI
9170.0	[ft]	C	RRI
9190.0	[ft]	DC	RRI
9210.0	[ft]	C	RRI
9250.0	[ft]	C	RRI
9270.0	[ft]	DC	RRI
9290.0	[ft]	C	RRI
9330.0	[ft]	C	RRI
9350.0	[ft]	DC	RRI
9370.0	[ft]	DC	RRI
9420.0	[ft]	C	RRI
9430.0	[ft]	DC	RRI
9450.0	[ft]	C	RRI
9490.0	[ft]	C	RRI
9510.0	[ft]	DC	RRI
9530.0	[ft]	C	RRI
9570.0	[ft]	C	RRI
9590.0	[ft]	DC	RRI
9610.0	[ft]	C	RRI
9650.0	[ft]	C	RRI
9690.0	[ft]	C	RRI
9710.0	[ft]	DC	RRI
9730.0	[ft]	C	RRI
9760.0	[ft]	DC	RRI
9770.0	[ft]	C	RRI
9800.0	[ft]	DC	RRI

Lithostratigraphy



Top depth [mMD RKB]	Lithostrat. unit
171	NORDLAND GP
844	UTSIRA FM
926	HORDALAND GP
1662	ROGALAND GP
1662	BALDER FM
1705	SELE FM
1860	SHETLAND GP
2397	CROMER KNOLL GP
2405	VIKING GP
2405	DRAUPNE FM
2411	BRENT GP
2411	TARBERT FM
2458	NESS FM
2508	ETIVE FM
2540	RANNOCH FM
2599	DUNLIN GP
2599	DRAKE FM
2644	COOK FM
2655	BURTON FM
2849	STATFJORD GP
2973	HEGRE GP

Geochemical information

Document name	Document format	Document size [MB]
125_1	pdf	0.23
125_2	pdf	1.12

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

Document name	Document format	Document size [MB]
125_01_WDSS_General_Information	pdf	0.28

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





Document name	Document format	Document size [MB]
125 33 9 3 ANALYSIS OF SIDEWALL SAMPLES	pdf	0.24
125 33 9 3 CHARTS	pdf	6.13
125 33 9 3 COMPLETION REPORT	pdf	2.80
125 33 9 3 CORE ANALYSIS RESULTS	pdf	1.68
125 33 9 3 CORRELATION OF BRENT FOR MATION	pdf	1.05
125 33 9 3 FINAL GEOLOGICAL SUMMARY	pdf	0.31
125 33 9 3 PALYNOLOGY AND STRATIGRAPHY	pdf	3.27
125 33 9 3 SOURCE ROCK	pdf	1.83

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2479	2481	0.0

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					

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHC	460	2989
CDM	926	2989
DLL	2332	2671
FDC CNL	926	2989
IES	459	2989
VELOCITY	460	2989



**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	221.0	36	221.0	0.00	
SURF.COND.	20	458.0	26	471.0	0.00	
INTERM.	13 3/8	926.0	17 1/2	941.0	0.00	
INTERM.	9 5/8	2147.0	12 1/4	2159.0	0.00	
INTERM.		2992.0	8 1/2	2992.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
837	1.08			Waterbased	
1311	1.68			Waterbased	
2281	1.80			Waterbased	
2991	1.41			Waterbased	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
8089.00	[ft]
8462.00	[ft]
8403.50	[ft]
8556.50	[ft]
8527.00	[ft]
8331.00	[ft]

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]
125 Formation pressure (Formasjonstrykk)	PDF	0.22

