General information

Wellbore name	35/9-1 R
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	GJØA
Discovery	35/9-1 Gjøa
Well name	35/9-1
Seismic location	DGM 1-86-0473 3D CDP 1850
Production licence	153
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	603-L2
Drilling facility	POLAR PIONEER
Drilling days	25
Entered date	03.07.1989
Completed date	27.07.1989
Plugged and abondon date	27.07.1989
Release date	27.07.1991
Publication date	15.12.2006
Purpose - planned	WILDCAT
Reentry	YES
Reentry activity	TESTING/PLUGGING
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	VIKING GP
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	BRENT GP
3rd level with HC, age	EARLY JURASSIC
3rd level with HC, formation	DUNLIN GP
Kelly bushing elevation [m]	23.0
Water depth [m]	361.0
Total depth (MD) [m RKB]	2350.0
Final vertical depth (TVD) [m RKB]	2348.0
Maximum inclination [°]	5.5
Bottom hole temperature [°C]	82
Oldest penetrated age	PRE-DEVONIAN

Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	61° 23' 7.95'' N
EW degrees	3° 59' 3.72'' E
NS UTM [m]	6806290.80
EW UTM [m]	552595.04
UTM zone	31
NPDID wellbore	1441

Wellbore history

General

Well 35/9-1 R is a re-entry of well 35/9-1, which found oil and gas in the Jurassic. Well 35/9-1 was suspended without testing due to other assignment for the rig. The objective for 35/9-1 R was testing and permanent abandonment.

Operations and results

Appraisal well 35/9-1 was re-entered (35/9-1 R) with the semi-submersible installation Polar Pioneer on 3 July 1989

The well was tested, plugged, and permanently abandoned as an oil and gas appraisal.

Testing

Three DSTs were performed. Production test data quoted below refer to maximum rates at the specified choke sizes.

DST 1 was performed in the interval 2285.8-2291.8 m (Dunlin Group). It flowed at an oil rate of 903 Sm3/day through a 25.4 mm choke. The GOR was 284 Sm3/Sm3. The oil gravity was 0.815 g/cc and the gas gravity 0.705 (air = l). The wellhead pressure was 73.5 bars and the bottom hole temperature 79.9 deg C. The well produced no CO2 or H2S. The production index was 23.6 Sm3/day/bar.

DST 2 was performed in the interval 2225.4-2249.4 m (Brent Group). It flowed at a gas rate of 598000 Sm3/day through a 17.46 mm choke. The GOR was 3014 Sm3/Sm3. The oil gravity was 0.728 g/cc and the gas gravity 0.681 (air=l). The wellhead pressure was 150.6 bar and the bottom hole temperature 78.2 deg C. The well produced 0.4% CO2 and no H2S.

DST 3 was performed in the interval 2100.3 - 2138.3 m (Krossfjord Formation). It flowed at a gas rate of 912500 Sm3/day through a 25.4 mm choke. The GOR was 5098 Sm3/Sm3. The oil gravity was 0.749 g/cc and the gas gravity 0.705 (air=l). The wellhead pressure was 116.5 bars and the bottom hole temperature 74.2 deg C. The well produced 0.4% CO2 and no H2S.

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
384	NORDLAND GP
588	ROGALAND GP
588	BALDER FM
620	SELE FM
658	LISTA FM
823	NO FORMAL NAME
863	LISTA FM
1211	VÅLE FM
1229	SHETLAND GP
1229	JORSALFARE FM
1280	KYRRE FM
1940	SVARTE FM
1967	CROMER KNOLL GP
1967	RØDBY FM
2013	ÅSGARD FM
2037	VIKING GP
2037	FENSFJORD FM
2099	KROSSFJORD FM
2140	HEATHER FM
2225	BRENT GP
2225	NESS FM
2250	RANNOCH FM
2267	DUNLIN GP
2312	STATFJORD GP
2314	BASEMENT

Geochemical information

Document name	Document format	Document size [MB]
1441_1	pdf	0.40

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2286	2292	25.4
2.0	2225	2249	17.6

3.0	2100	2138	25.4

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	7.300			80
2.0	15.000			78
3.0	11.600			74

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	903	256452	0.815	0.705	284
2.0	198	598000	0.728	0.681	3014
3.0	179	912000	0.749	0.705	5098