General information

Wellbore name	34/10-33 CR
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	GULLFAKS SØR
Discovery	34/10-2 Gullfaks Sør
Well name	34/10-33
Seismic location	ST 8134 - 156 SP.329
Production licence	050
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	614-L2
Drilling facility	DEEPSEA BERGEN
Drilling days	63
Entered date	24.02.1990
Completed date	27.04.1990
Release date	27.04.1992
Publication date	01.01.2012
Purpose - planned	APPRAISAL
Reentry	YES
Reentry activity	TESTING/PLUGGING
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
Kelly bushing elevation [m]	23.0
Water depth [m]	134.0
Total depth (MD) [m RKB]	3752.0
Final vertical depth (TVD) [m RKB]	3587.0
Maximum inclination [°]	46.1
Bottom hole temperature [°C]	129
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	DRAKE FM
Geodetic datum	ED50
NS degrees	61° 7' 34.44'' N
EW degrees	2° 12' 57.1'' E
NS UTM [m]	6777262.00

EW UTM [m]	457756.18
UTM zone	31
NPDID wellbore	1530

Wellbore history

General

Well 34/10-33 CR was the last in a cluster well bores drilled to appraise the Gullfaks South discovery beginning with well 34/10-33. Well 34/10-33 CR is the re-entry of well 34/10-33 C, which served as a host well for the long-term production test 34/10-T-33 C. In this test the production logging tools failed and the bottom hole pressure recorders were only partly functioning in the long-term production test. Furthermore, an unexpected increase in GOR occurred during the test, and this could not be interpreted based on the available data. Therefore the programme for the re-entry included a new test from the same perforation interval. A further objective of the re-entry was to retrieve and read two pressure recorders that were left in the well 34/10-33 C after the test production. The mean reservoir pressure should be estimated from these data. After testing the well bore would be permanently abandoned.

Operations and results

Appraisal well 34/10-33C was re-entered with the semi-submersible installation Deepsea Bergen on 24 February 1990.

The pressure recorders were retrieved, but both had failed to work.

No cores were cut and no wire line fluid samples were taken.

After testing the well was permanently abandoned on 27 April 1990 as an oil and gas appraisal well.

Testing

Three drill stem tests were attempted from perforations in the interval 3448 to 3517 m (3347.3 to 3395.4 m TVD MSL).

DST 1 was not initiated due to technical reasons.

DST1 A was terminated mid-way due to stuck wire line tools. This test produced 1624 Sm3 oil and 313300 Sm3 gas/day through a 52/64" choke in the clean-up flow. The GOR was 193 Sm3/Sm3. The flowing BHP was 40234 kPa and the flow temperature was 124.3 deg C.

DST1 B was a complete test with PLT logging in the main flow period. It produced at maximum flow 1634 Sm3 oil and 305558 Sm3 gas through a 52/64" choke. The duration of this flow was 19.6 hours. The GOR was 187 Sm3/Sm3, slightly lower than in the periods with more restricted flow. The flowing BHP was 40454 kPa and the flow temperature was 125.0 deg C. Final shut-in BHP was 44061 kPa.

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
157	NORDLAND GP
909	UTSIRA FM
950	NO FORMAL NAME
974	HORDALAND GP
1029	NO FORMAL NAME
1139	NO FORMAL NAME
1247	NO FORMAL NAME
1514	NO FORMAL NAME
1562	NO FORMAL NAME
1610	NO FORMAL NAME
1821	ROGALAND GP
1821	BALDER FM
1897	LISTA FM
2048	SHETLAND GP
2048	JORSALFARE FM
2340	KYRRE FM
3008	CROMER KNOLL GP
3008	MIME FM
3012	VIKING GP
3012	DRAUPNE FM
3045	HEATHER FM
3215	BRENT GP
3215	TARBERT FM
3345	NESS FM
3601	ETIVE FM
3617	RANNOCH FM
3722	DUNLIN GP
3722	DRAKE FM

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

Document name	Document format	Document size [MB]
1530_34_10_33_CR_Completion_report	pdf	20.62

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	3448	3517	20.6
1.2	3448	3517	0.0

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	23.000	16.000	42.000	124
1.2				125

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	1635	313300	0.859	0.680	193
1.2					

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BO CCL	91	180
BP CCL	340	2425
BP CCL	3365	3385
GR CCL	3157	3393
GR CCL	3160	3351
GR CCL PLT	3428	3537
PERF CCL	3100	3180
PLT GR CCL	3428	3537