



General information





Wellbore name	7/11-2
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	COD
Discovery	7/11-1 Cod
Well name	7/11-2
Seismic location	NJV 5704 SP: 1248
Production licence	018
Drilling operator	Phillips Petroleum Company Norway
Drill permit	17-L
Drilling facility	OCEAN TRAVELER
Drilling days	86
Entered date	21.07.1968
Completed date	14.10.1968
Release date	14.10.1970
Publication date	15.01.2013
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	NO
1st level with HC, age	PALEOCENE
1st level with HC, formation	FORTIES FM
Kelly bushing elevation [m]	27.0
Water depth [m]	82.0
Total depth (MD) [m RKB]	3427.0
Maximum inclination [°]	2
Bottom hole temperature [°C]	125
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	TOR FM
Geodetic datum	ED50
NS degrees	57° 4' 15.2" N
EW degrees	2° 24' 26.5" E
NS UTM [m]	6325574.83
EW UTM [m]	464065.41
UTM zone	31
NPDID wellbore	156

**Wellbore history****General**

Well 7/11-2 was drilled , ca 1.5 km from the UK Border on the eastern side of the Breiflabb Basin in the southern North Sea. The objective was to test the hydrocarbon potential in the Paleocene on the west flank of the Cod structure, and to confirm the gas and condensate discovery made by the 7/11-1 well. Well 7/11-1 tested up to 430 Sm³ condensate and 1254000 Sm³ gas /day from the Late Paleocene Forties Formation.

Operations and results

Appraisal well 7/11-2 was spudded with the semi-submersible installation Ocean Traveller on 21 July 1968 and drilled to TD at 3427 m in the Late Cretaceous Tor Formation. Tight hole was experienced when pulling out of the 17 1/2" hole. The hole was washed back to TD and mud weight increased to 14 ppg. Logging and casing operations could then be successfully carried out. The well was drilled with sea water down to 1219 m where the system was changed to a salt-saturated Drispac-Desco-Flosal type.

The well tested gas and condensate in Paleocene sandstones (the Forties Formation).

One core was taken in the Paleocene sandstone in the interval 3030.6 m to 3045 m. No wire line fluid samples were taken.

The well was permanently abandoned on as a dry well.

Testing

Three drill stem tests were performed.

DST 1 tested the interval 3166.3 m to 3192.5 m. This test produced only 3.7 m³ salt water-cut mud and mud filtrate.

DST2 tested the interval 3027.3 m to 3105.9 m. This test produced 221 Sm³ gas and 469000 Sm³ gas /day through a 3/4" choke. These rates correspond to a gas/condensate ratio of 2121 Sm³/Sm³, but the GCR varied from 1251 Sm³/Sm³ on a 1/4" choke to 3111 on a 1" choke. The condensate gravity was fairly constant for all rates; 61.0 to 62.1 deg API.

DST 3 tested the interval 2979.7 m to 2998 m. This test produced no formation fluid to surface. After injecting 4 m³ acid (HCl) and 1.6 m³ diesel 16.5 m³ diesel+mud flowed back from the formation.

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Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
533.40	3427.48



Cuttings available for sampling?	NO
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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	3030.6	3046.2	[m]

Total core sample length [m]	15.6
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
109	NORDLAND GP
1549	HORDALAND GP
2981	ROGALAND GP
2981	BALDER FM
2997	SELE FM
3025	FORTIES FM
3175	MAUREEN FM
3220	SHETLAND GP
3220	EKOFISK FM
3346	TOR FM

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

Document name	Document format	Document size [MB]
156_01_WDSS_General_Information	pdf	0.20

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

Document name	Document format	Document size [MB]
156_7_11_2_AAODC_REPORTS	PDF	20.61





156 7 11 2 CHANGE IN DRILLING PROGRAM ON EXPLORATORY TEST	PDF	0.59
156 7 11 2 CLASTIC SEDIMENTS	PDF	1.79
156 7 11 2 COD	PDF	0.51
156 7 11 2 COMPLEX LITHOLOGY ANALYSIS	PDF	19.99
156 7 11 2 CONTINENTAL SHELF DRILL CUTTINGS AND CORE SAMPLES	PDF	0.09
156 7 11 2 CORE ANALYSIS RESULTS	PDF	0.25
156 7 11 2 DRILL STEM TEST DATA TEST-NO-1	PDF	1.73
156 7 11 2 DRILL STEM TEST DATA TEST NO-2	PDF	5.02
156 7 11 2 DRILL STEM TEST DATA TEST NO-3	PDF	3.43
156 7 11 2 HIGH RESOLUTION DIPMETER-REF-02	PDF	3.33
156 7 11 2 HIGH RESOLUTION DIPMETER-REF-24	PDF	2.22
156 7 11 2 INDIVIDUAL WELL RECORD	PDF	12.51
156 7 11 2 INTERNATIONAL DEPARTMENT INDIVIDUAL WELL RECORD	PDF	69.81
156 7 11 2 LOGGING RAPPORT AV PALEOCEN	PDF	0.16
156 7 11 2 MICROPALAEONTOLOGICAL CHART	PDF	10.14
156 7 11 2 RESERVOIR FLUID STUDY	PDF	4.89
156 7 11 2 SEDIMENTOLOGY STUDY	PDF	7.07
156 7 11 2 SIDEWALL CORE FORM	PDF	0.10
156 7 11 2 SURFACE AND BOTTOM HOLE READINGS	PDF	1.38
156 7 11 2 SURVEY REPORT	PDF	1.08
156 7 11 2 TEMPORARY SUSPENSION PROCEDURE	PDF	0.15
156 7 11 2 THE MICROPALAEONTOLOGY AND STRATIGRAPHY	PDF	0.73
156 7 11 2 WELL COMPLETION REPORT	PDF	13.78
156 7 11 2 WELL COMPLETION REPORT PRODUCTION LICENSE 018	PDF	1.75
156 7 11 2 WELL PRODUCTION TEST DST NO-1	PDF	5.01
156 7 11 2 WELL PRODUCTION TEST DST NO-2	PDF	2.87
156 7 11 2 WELL PRODUCTION TEST DST NO-3	PDF	0.31





Documents - Norwegian Offshore Directorate papers

Document name	Document format	Document size [MB]
156 01 NPD Paper No.10 Lithology Well 7 11 2	pdf	24.45
156 02 NPD Paper No.10 Lithologic Correlation chart Well 7 11 2	pdf	32.57
156 03 NPD Paper No.10 Paleocene Correlation map Well 7 11 2	pdf	12.36

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	3167	3193	0.0
2.0	3028	3107	19.0
3.0	2980	2999	0.0

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				
2.0				
3.0				

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0					
2.0	221	469000			2121
3.0					

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL	2668	3198
FDC	2896	3428
GR	104	484
HDT	1946	3294
IES	1946	3427





LL-7	484	3296
MLL	2896	3428
SGR	484	3427
SNP	2896	3428
VSP	30	3422

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	132.0	36	132.0	0.00	LOT
SURF.COND.	20	484.0	26	484.0	0.00	LOT
INTERM.	13 3/8	1945.0	17 1/2	1945.0	0.00	LOT
INTERM.	9 5/8	3203.0	12 1/4	3203.0	0.00	LOT
OPEN HOLE		3427.0	8 1/2	3427.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1219	1.07	30.0	12.0	waterbased	
1981	1.19	65.0	30.0	waterbased	
2744	1.43	55.0	25.0	waterbased	
2959	1.63	55.0	8.0	waterbased	
3427	1.55	60.0	14.0	waterbased	