General information

Wellbore name	16/11-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	16/11-2
Seismic location	LINE PS 5811
Production licence	016
Drilling operator	Phillips Petroleum Company Norway
Drill permit	86-L
Drilling facility	OCEAN VIKING
Drilling days	38
Entered date	16.06.1973
Completed date	23.07.1973
Release date	23.07.1975
Publication date	24.09.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	27.0
Water depth [m]	70.0
Total depth (MD) [m RKB]	2378.0
Final vertical depth (TVD) [m RKB]	2372.0
Maximum inclination [°]	12
Oldest penetrated age	LATE PERMIAN
Oldest penetrated formation	ZECHSTEIN GP
Geodetic datum	ED50
NS degrees	58° 11' 7.2'' N
EW degrees	2° 28' 9.2'' E
NS UTM [m]	6449614.03
EW UTM [m]	468787.06
UTM zone	31
NPDID wellbore	336

Wellbore history

General

The Anchovy (16/11-2) well was drilled on a semi-domal structure, about 5 miles long and 4 miles wide situated in the Danish-Norwegian Basin. It was estimated that at Paleocene depth there would be 12 square miles of closure with 150 m vertical relief and at Jurassic depth, 9 square miles of closure with 370 m vertical relief. The principal objective horizons were the Jurassic and Paleocene sands.

Operations and results

Wildcat well 16/11-2 was spudded with the semi-submersible installation Ocean Viking and drilled to TD at 2378 m in Late Permian Zechstein salt.

No Paleocene sands were encountered. As expected the Danian Chalk section was missing in the well. The Upper Cretaceous Limestone was tight with no shows. The Jurassic sand top was encountered at 2202 m with the main sand development beginning at 2207 m. The net sand thickness was 35 m, but on testing was found to be tight and unproductive. The total Jurassic section was about 244 m thinner than anticipated. The Triassic was missing. An 11.5 m Dolomite section was developed from 2250 m to 2261.5 m at the top of the Permian succession. This was also tested, but found to be tight and unproductive. Thus the well was terminated in the Zechstein higher than planned. Except for the reduced Jurassic sequence and absence of Triassic sediments causing the higher position of the Zechstein, the structure and stratigraphy were as predicted in the prognosis. Geochemical analyses of shales from the Late Jurassic Tau Formation proved excellent source potential, but the kerogen is immature to marginally mature in the well location. No cores were cut. The well was permanently abandoned as a dry well on 23 July 1973.

Testing

Two intervals in the Sandnes Formation were perforated and tested, 2261 m to 2251 m and 2242 m to 2231 m. Both intervals were found tight and unproductive and no hydrocarbons were produced during the tests.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1405.13	2359.15

Cuttings available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
97	NORDLAND GP
912	UTSIRA FM
931	HORDALAND GP

1532	ROGALAND GP
1532	BALDER FM
1573	SELE FM
1606	LISTA FM
1640	VÅLE FM
1656	SHETLAND GP
1656	EKOFISK FM
1697	TOR FM
1819	HOD FM
1897	CROMER KNOLL GP
1897	RØDBY FM
1917	SOLA FM
1963	ÅSGARD FM
2127	BOKNFJORD GP
2127	TAU FM
2202	VESTLAND GP
2202	SANDNES FM
2269	ZECHSTEIN GP

Composite logs

Document name	Document format	Document size [MB]
336	pdf	0.22

Geochemical information

Document name	Document format	Document size [MB]
336_1	pdf	0.31
336_2_Source_rock_potential_of_the_16_11_2_well	pdf	4.08

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

Document name	Document format	Document size [MB]
336_01_WDSS_General_Information	pdf	0.25

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

Document name	Document format	Document size [MB]
336_1_Completion_Report_and_Completion_log	pdf	10.70

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
2.0	2251	2262	0.0
3.0	2231	2242	0.0

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

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

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHC	449	1399
BHC C	1387	2374
CBL	1317	2327
CDM	1388	2377
CDM AP	1388	2377
CDM PP	1388	2377
CDR	1388	2377
GR	70	449
IES	449	1401
IES	1388	2376

LL-9	1890	2372

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	133.0	36	202.0	0.00	LOT
SURF.COND.	20	449.0	26	459.0	0.00	LOT
INTERM.	13 3/8	1387.0	17 1/2	1402.0	0.00	LOT
INTERM.	9 5/8	2378.0	12 1/4	2378.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
131	1.05			seawater	
457	1.06			seawater	
1402	1.14	45.0		Gyp-seawate	
3657	1.31	50.0		seawater	