

**General information**

Wellbore name	9/4-3
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	9/4-3
Seismic location	LINE CN9-16
Production licence	013
Drilling operator	Conoco Norway Inc.
Drill permit	74-L
Drilling facility	OCEAN TIDE
Drilling days	37
Entered date	14.07.1972
Completed date	19.08.1972
Release date	19.08.1974
Publication date	22.04.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	28.0
Water depth [m]	72.0
Total depth (MD) [m RKB]	2682.0
Maximum inclination [°]	0.75
Bottom hole temperature [°C]	68
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50
NS degrees	57° 36' 54.5" N
EW degrees	4° 18' 57.7" E
NS UTM [m]	6386770.59
EW UTM [m]	578623.15
UTM zone	31
NPDID wellbore	152



Wellbore history

General

Well 9/4-3 was drilled on a salt-induced, anticlinal structure in the Egersund Basin in the North Sea, 17 km to the east of the 9/4-1 location. The primary objective was the Middle Jurassic sandstone, but also Triassic sands were considered prospective. Danian and Late Cretaceous chalks were seen as secondary objectives.

The well is Type Well for the Jurassic Bryne, Sandnes, Tau, and Sauda Formations in the Norwegian-Danish Basin.

Operations and results

Wildcat well 9/4-3 was spudded with the jack-up installation Ocean Tide on 14 July 1972 and drilled to TD at 2682 m in Late Triassic sediments of the Skagerrak Formation. The hole was drilled without significant drilling problems, although heaving shales in the lower Tertiary caused some difficulties. After drilling out the 20" casing shoe at 404 m the drilling fluid was changed from a gelled seawater gel to a lignosulphonate seawater mud system, which was used to TD.

The only sandy Formation encountered above the Jurassic level was the Late Paleocene Fiskebank Formation at 1150 m, with a 50 m thickness. A complete sequence of Early Cretaceous stages was present between 1967 and 2250 m. The Kimmeridge section also appeared complete and represented entirely by an argillaceous succession. No sandy facies of Early Kimmeridgian/ Late Oxfordian was detected. The Bathonian-Bajocian sandstone/shale sequence between 2490 m to 2613 m (the Vestland Group) is comparable with adjacent wells in the area although clearly thicker in the current section. No oil shows were recorded in any section of the well during drilling and the logs confirmed that the Jurassic and Triassic sections were water wet.

From organic geochemical analyses source rocks were found in shales of the Late Jurassic Tau and Egersund Formations, and the coals of the Middle Jurassic. The 37 m thick Tau Formation at 2400 m contained an average kerogen type II/III with TOC around 5% and has a rich potential for generation of oil and gas. The Egersund Formation has mainly kerogen type III, TOC in the range 0.5 to 2.5 % and has a good gas potential. The Middle Jurassic coals are believed to have potential for mixed to gaseous hydrocarbons. The geochemical analyses confirmed a well barren of migrated hydrocarbons, with only traces of very early generated in-situ hydrocarbons in late Jurassic shales and Middle Jurassic coals. The well was found immature all through, reaching a vitrinite reflectance of 0.4 % Ro at TD. No conventional cores were cut and no fluid sample taken.

The well was permanently abandoned on 19 August 1972 as a dry hole.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
158.50	2682.24

Cuttings available for sampling?	NO
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**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
100	NORDLAND GP
520	HORDALAND GP
1092	ROGALAND GP
1092	BALDER FM
1114	SELE FM
1150	FISKEBANK FM
1200	SELE FM
1250	LISTA FM
1286	VÅLE FM
1305	SHETLAND GP
1305	EKOFISK FM
1328	TOR FM
1730	HOD FM
1935	BLODØKS FM
1958	HIDRA FM
1967	CROMER KNOLL GP
1967	RØDBY FM
1983	SOLA FM
2059	ÅSGARD FM
2200	BOKNEFJORD GP
2200	FLEKKEFJORD FM
2250	SAUDA FM
2400	TAU FM
2437	EGERSUND FM
2490	VESTLAND GP
2490	SANDNES FM
2508	BRYNE FM
2613	NO GROUP DEFINED
2613	SKAGERRAK FM

Composite logs

Document name	Document format	Document size [MB]
152	pdf	0.31





Geochemical information

Document name	Document format	Document size [MB]
152_1	pdf	1.46

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

Document name	Document format	Document size [MB]
152_01_WDSS_General_Information	pdf	0.23

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

Document name	Document format	Document size [MB]
152_01_Final_Report	pdf	2.34
152_02_Composite_Well_log	pdf	1.22

Documents - Norwegian Offshore Directorate papers

Document name	Document format	Document size [MB]
152_01_NPD_Paper_No.24_Lithology_Well_9_4_3	pdf	13.95
152_02_NPD_Paper_No.24_Interpreted_Lithology_log_Well_9_4_3	pdf	42.22

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHC	401	1000
BHC-C	1070	2678
CDM AP	1951	2681
CDM PP	1951	2681
FDC	1073	2680
GR	61	401





GR	975	1070
IES	402	1086
IES	1086	2682
PRESSURE	1088	2682
VELOCITY	853	2682

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
3820.00	[m]
3840.00	[m]
3860.00	[m]
3900.00	[m]