



General information

Wellbore name	31/2-4
Type	EXPLORATION
Purpose	APPRAISAL
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORTH SEA
Field	TROLL
Discovery	31/2-1 (Troll Vest)
Well name	31/2-4
Seismic location	TLGS 78 - 6C & D - 26
Production licence	054
Drilling operator	A/S Norske Shell
Drill permit	261-L
Drilling facility	BORGNY DOLPHIN
Drilling days	13
Entered date	01.09.1980
Completed date	13.09.1980
Release date	13.09.1982
Publication date	15.02.2006
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	336.0
Total depth (MD) [m RKB]	815.0
Final vertical depth (TVD) [m RKB]	815.0
Maximum inclination [°]	0.5
Oldest penetrated age	OLIGOCENE
Oldest penetrated formation	HORDALAND GP
Geodetic datum	ED50
NS degrees	60° 51' 23.57" N
EW degrees	3° 30' 44.33" E
NS UTM [m]	6747077.42
EW UTM [m]	527835.00
UTM zone	31
NPDID wellbore	208



Wellbore history

General

Well 31/2-4 is located some 10 km NNW of the discovery well 31/2-1 in a separate fault compartment near the crest of the Jurassic gas accumulation. This crestal area appeared also to coincide with the culminations of all deeper horizons that could be mapped. The well had two main objectives. The first was to appraise the Jurassic gas accumulation in the 31/2-1 Troll Discovery in a location with nearly maximum gross hydrocarbon column. The well should test lateral variations in this reservoir. The second major objective was to explore deeper Triassic/Palaeozoic Formations. The well would test possible hydrocarbon accumulations under the Late Jurassic Troll reservoir, explore possible pre-Jurassic source rocks, and provide geological ages for deep horizons and thus improve the regional geological setting.

TD of the well was proposed to be 5000 m below sea level or in Palaeozoic formations whatever came first.

Operations and results

Well 31/2-4 was spudded with the semi-submersible installation Borgny Dolphin on 1 September 1980 and drilled to TD at 815 m in the Hordaland Group. The well was drilled with seawater and hi-vis pills. After having set the 20" casing, the well was secured and suspended on September 13 due to a farm out of the rig to Statoil. Statoil had requested the Borgny Dolphin to be released to secure their well 34/10-10, which was blowing gas from a shallow gas zone.

The well was classified as a dry well.

Testing

No drill stem test was performed in the well.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
460.00	5025.00

Cuttings available for sampling?	YES
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Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1371.2	[m]	C	SHELL
1375.9	[m]	C	SHELL
1376.6	[m]	C	SHELL
1380.8	[m]	C	SHELL
1398.3	[m]	C	SHELL



1398.8	[m]	C	SHELL
1403.6	[m]	C	SHELL
1412.0	[m]	C	SHELL
1413.6	[m]	C	SHELL
1460.8	[m]	C	SHELL
1460.9	[m]	C	SHELL
1463.5	[m]	C	SHELL
1516.6	[m]	C	SHELL
1518.3	[m]	C	SHELL
1521.6	[m]	C	SHELL
1521.7	[m]	C	SHELL
1521.7	[m]	C	SHELL
1521.9	[m]	C	SHELL
1522.1	[m]	C	SHELL
1522.2	[m]	C	SHELL
1523.1	[m]	C	SHELL
1524.0	[m]	C	SHELL
1524.0	[m]	C	SHELL
1526.1	[m]	C	SHELL
1530.5	[m]	C	SHELL
1530.6	[m]	C	SHELL
1530.7	[m]	C	SHELL
1531.6	[m]	C	SHELL
1531.9	[m]	C	SHELL
1532.5	[m]	C	SHELL
1532.6	[m]	C	SHELL
1537.7	[m]	C	SHELL
1542.4	[m]	C	SHELL
1544.0	[m]	C	SHELL
1545.9	[m]	C	SHELL
1546.4	[m]	C	SHELL
1546.8	[m]	C	SHELL
1546.9	[m]	C	SHELL
1548.2	[m]	C	SHELL
1549.0	[m]	C	SHELL
1557.6	[m]	C	SHELL
1562.0	[m]	C	SHELL
1562.9	[m]	C	SHELL
1596.6	[m]	C	SHELL
1625.1	[m]	C	SHELL



1661.9	[m]	C	SHELL
1662.4	[m]	C	SHELL

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
361	NORDLAND GP
494	NO FORMAL NAME
528	NO FORMAL NAME
724	HORDALAND GP

Geochemical information

Document name	Document format	Document size [MB]
208_1	pdf	0.42
208_2	pdf	1.24
208_3	pdf	1.25

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

Document name	Document format	Document size [MB]
208_01_WDSS_General_Information	pdf	0.11
208_02_WDSS_completion_log	pdf	0.08

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

Document name	Document format	Document size [MB]
208_01_31_2_4_Completion_Report	pdf	28.56
208_02_31_2_4_Completion_log	pdf	2.47
208_31_2_4_Biostratigraphy	pdf	10.67
208_31_2_4_Compaction_study_82.242	pdf	1.75
208_31_2_4_Core_Report_Core_5-28_Final_report	pdf	4.07
208_31_2_4_Exploration_well_proposal	pdf	1.39
208_31_2_4_Exploration_well_proposal_encl_01	pdf	0.61





208 31 2 4 Exploration well proposal encl 02	pdf	0.58
208 31 2 4 Exploration well proposal encl 03	pdf	0.69
208 31 2 4 Exploration well proposal encl 04	pdf	1.63
208 31 2 4 Exploration well proposal encl 05	pdf	1.61
208 31 2 4 Exploration well proposal encl 06	pdf	1.65
208 31 2 4 Exploration well proposal encl 07	pdf	1.81
208 31 2 4 Exploration well proposal encl 08	pdf	2.23
208 31 2 4 Exploration well proposal encl 09	pdf	0.50
208 31 2 4 Geochemistry analysis	pdf	3.07
208 31 2 4 Geochem Source rock properties	pdf	2.68
208 31 2 4 Geolog.invest.of.cores vol1	pdf	8.31
208 31 2 4 Geolog.invest.of.cores vol2	pdf	5.07
208 31 2 4 Geolog.invest.of.cores vol2 encl 01	pdf	1.09
208 31 2 4 Geolog.invest.of.cores vol2 encl 02	pdf	0.97
208 31 2 4 Geolog.invest.of.cores vol2 encl 03	pdf	0.87
208 31 2 4 Geolog.invest.of.cores vol2 encl 04	pdf	0.07
208 31 2 4 Geolog.invest.of.cores vol2 encl 05	pdf	0.34
208 31 2 4 Geolog.invest.of.cores vol2 encl 06	pdf	0.35
208 31 2 4 Geolog.invest.of.cores vol2 encl 07	pdf	0.35
208 31 2 4 Geolog.invest.of.cores vol2 encl 08	pdf	0.13
208 31 2 4 Geolog.invest.of.cores vol2 encl 09	pdf	0.14
208 31 2 4 Geolog.invest.of.cores vol2 encl 10	pdf	0.53
208 31 2 4 Geolog.invest.of.cores vol3	pdf	26.75
208 31 2 4 List of results from well	pdf	1.38
208 31 2 4 Palynofacies investigation	pdf	7.83
208 31 2 4 Petr.investigation of cores	pdf	1.41
208 31 2 4 Quick look evaluation	pdf	0.81





208 31 2 4 Quick look evaluation encl 01	pdf	0.40
208 31 2 4 Quick look evaluation encl 02	pdf	0.38
208 31 2 4 Rel.perm.measurements	pdf	1.12
208 31 2 4 Repeat form test report	pdf	0.57
208 31 2 4 Saturation exponent water-toluene	pdf	0.58
208 31 2 4 Special core and sieve analysis	pdf	7.26
208 31 2 4 TDC Final report by Anchor	pdf	2.77
208 31 2 4 Well summary by Shell	pdf	4.74

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BGT GR	807	1274
BGT GR	1270	1933
BGT GR	1270	1938
BGT GR	1270	1939
BGT GR	1271	1940
CBL VDL GR	600	1804
CBL VDL GR	719	1271
CBL VDL GR	719	1276
CBL VDL GR CCL	352	1913
CBL VDL GR CCL	1800	3985
DDBHC GR	1271	1940
DLL MSFL GR	1271	1936
FDC CNL GR CAL	450	818
FDC CNL GR CAL	807	1270
FDC CNL GR CAL	1271	1938
FDC CNL GR CAL	1926	3990
FDC CNL GR CAL	3985	5032
HDT	1271	1938
HDT	1926	3990
HDT	3985	5032
ISF BHC GR SP	450	818
ISF BHC GR SP	807	1269
ISF BHC GR SP	1271	1938
ISF BHC GR SP	1926	3988
ISF BHC GR SP	3985	5031
ISF BHC GR SP	3985	5031





LDT CNL GR	1271	1936
LDT CNL GR	1350	1635
NGT	1271	1938
RFT	1396	1845
RFT GR	2142	3585
RFT GR	4104	4955

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	420.0	36	425.0	0.00	LOT
CONDUCTOR	30	446.0	36	450.0	0.00	LOT
SURF.COND.	20	782.0	26	790.0	0.00	LOT
SURF.COND.	20	807.0	26	815.0	1.71	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
353	1.05	100.0		seawater	
790	1.28	52.0		seawater	

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
208 Formation pressure (Formasjonstrykk)	PDF	0.18

