

**General information**

Wellbore name	15/12-13 B
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	<a href="#">link to press release</a>
Factmaps in new window	<a href="#">link to map</a>
Main area	NORTH SEA
Field	<a href="#">REV</a>
Discovery	<a href="#">15/12-12 Rev</a>
Well name	15/12-13
Seismic location	Survey x-line 896 in-line 1927 at 2645ms
Production licence	<a href="#">038</a>
Drilling operator	Pertra AS (OLD)
Drill permit	1062-L
Drilling facility	<a href="#">WEST ALPHA</a>
Drilling days	26
Entered date	17.05.2003
Completed date	11.06.2003
Release date	11.06.2005
Publication date	15.06.2005
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
Kelly bushing elevation [m]	18.0
Water depth [m]	87.0
Total depth (MD) [m RKB]	3151.0
Final vertical depth (TVD) [m RKB]	3071.0
Maximum inclination [°]	19.6
Bottom hole temperature [°C]	110
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50
NS degrees	58° 2' 3.83" N
EW degrees	1° 55' 4.57" E
NS UTM [m]	6433197.92

EW UTM [m]	436099.90
UTM zone	31
NPDID wellbore	4759

## Wellbore history

### General

Well 15/12-13 is located ca 0.8 km northwest of the 15/12-12 (Varg South) Discovery well. The primary objective was to appraise this discovery: to define the oil/water contact, measure current reservoir pressure and fluid gradients, confirm reservoir quality and geometry, and confirm geophysical model in terms of depth to top and base reservoir. Potential Kimmeridgian Sandstone immediately above the main Oxfordian reservoir was seen as secondary objective. The well bore 15/12-13 encountered the Oxfordian sandstones (Intra Heather Formation sandstone) 105 m deeper than the prognosed reservoir, and below the OWC. Since the objective of this well was not met well 15/12-13 A was drilled as a geological sidetrack to 15/12-13. Well 15/12-13 was abandoned in the Rogaland Group due to hole instability problems, and it was decided to drill a second sidetrack. This sidetrack had target approximately 350 m to the northwest of 15/12-12.

### Operations and results

Appraisal sidetrack well 15/12-13 B was spudded with the semi-submersible installation West Alpha on 17 May 2003. Kick-off was at 1345 m in 15/12-13. It was drilled to TD at 3151 m in the Triassic Sleipner Formation. The well bore was drilled with Sodium silicate (Barasil CX)/KCl/glycol mud.

A total of 134 m MD (128 m TVD) of Kimmeridgian to Late Oxfordian reservoir (2958 m to 3092 m MD) was penetrated in well 15/12-13 B. The oil/water contact was established at 3061.3 m (2964 m TVDSS), and the gas/oil contact at 3027.5 m (2931 m TVDSS). The reservoir was found to be pressure depleted, most likely due to production from the Varg Field, and the gas/oil contact had moved downwards from 2912 m TVDSS in well 15/12-12 (drilled in 2001).

No conventional core was cut. The MDT tool was run for pressure measurements and fluid sampling. Gas was sampled at 3010 m, 3017 m, 3021 m, and 3024 m. Oil was sampled at 3028.5 m. After completion of the logging program, the well was permanently abandoned on 11 June 2003 as an oil and gas appraisal.

### Testing

No drill stem test was performed.

## Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
105	<a href="#">NORDLAND GP</a>
1048	<a href="#">UTSIRA FM</a>
1240	<a href="#">HORDALAND GP</a>
2277	<a href="#">ROGALAND GP</a>

2277	<a href="#">BALDER FM</a>
2285	<a href="#">SELE FM</a>
2344	<a href="#">LISTA FM</a>
2520	<a href="#">SHETLAND GP</a>
2756	<a href="#">CROMER KNOLL GP</a>
2877	<a href="#">VIKING GP</a>
2877	<a href="#">DRAUPNE FM</a>
2939	<a href="#">HEATHER FM</a>
2951	<a href="#">INTRA HEATHER FM SS</a>
2963	<a href="#">VESTLAND GP</a>
2963	<a href="#">HUGIN FM</a>
3092	<a href="#">NO GROUP DEFINED</a>
3092	<a href="#">SKAGERRAK FM</a>

### Composite logs

Document name	Document format	Document size [MB]
<a href="#">4759</a>	pdf	0.31

### Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST GR	2935	3120
LWD - GR RES BAT	1320	2656
LWD - GR RES BAT	2656	2951
LWD - GR RES NEU ALD BAT	2951	3151
MDT GR ACTS ECRD	2960	3089
MDT GR ACTS ECRD	3010	3028
VSP GR	2000	3140

### Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm <sup>3</sup> ]	Formation test type
CONDUCTOR	30	165.0	36	171.0	0.00	LOT
SURF.COND.	13 3/8	1315.0	17 1/2	1320.0	0.00	LOT
INTERM.	9 5/8	2920.0	12 1/4	2951.0	1.88	LOT



OPEN HOLE		3151.0	8 1/2	3151.0	0.00	LOT
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**Drilling mud**

Depth MD [m]	Mud weight [g/cm <sup>3</sup> ]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1227	1.56	22.0		BARASILC-13B	
1460	1.50	26.0		BARASILC-13A	
1970	1.50	28.0		BARASILC-13A	
2407	1.50	26.0		BARASILC-13A	
2636	1.51	25.0		BARASILC-13A	
2656	1.54	24.0		BARASILC-13B	

**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]
<a href="#">4759 Formation pressure (Formasjonstrykk)</a>	pdf	0.22

