

**General information**

Wellbore name	25/11-8
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	BALDER
Discovery	25/11-1 Balder
Well name	25/11-8
Seismic location	CS-75-32 sp 2207
Production licence	001
Drilling operator	Esso Exploration and Production Norway A/S
Drill permit	223-L
Drilling facility	DYVI ALPHA
Drilling days	39
Entered date	08.09.1979
Completed date	16.10.1979
Release date	16.10.1981
Publication date	30.04.2010
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	EOCENE
1st level with HC, formation	INTRA BALDER FM SS
2nd level with HC, age	PALEOCENE
2nd level with HC, formation	HEIMDAL FM
Kelly bushing elevation [m]	25.0
Water depth [m]	126.0
Total depth (MD) [m RKB]	1950.0
Maximum inclination [°]	4.5
Bottom hole temperature [°C]	77
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	EKOFISK FM
Geodetic datum	ED50
NS degrees	59° 11' 17.33" N
EW degrees	2° 21' 39.92" E
NS UTM [m]	6561329.11



EW UTM [m]	463492.07
UTM zone	31
NPDID wellbore	369

Wellbore history

General

Well 25/11-8 was drilled ca 3 km west-north west of the 25/11-1 Balder discovery well on the Utsira High in the North Sea. The primary objective was to establish the presence of, and closure on, the thick accumulation of Paleocene zone IB sand in the central part of the Balder Field, evaluate the geologic interpretation of sand distribution and reservoir quality in this field and test the flow potential and nature of the hydrocarbons present.

Operations and results

Appraisal well 25/11-8 was spudded with the semi-submersible installation Dyvi Alpha on 8 September 1979 and drilled to TD at 1950 m in the Early Paleocene Ekofisk Formation. The well was drilled with Seawater/Gel/Lignosulphonate.

The well penetrated the Utsira Formation and several Skade Formation sands and then penetrated a ca 600 m thick section of shales belonging to the lower Hordaland Group before top Balder Formation was encountered at 1655 m. The well encountered two massive sand units in the Paleocene Heimdal Formation at 1721.5 m and 1743.8 m (dinoflagellate zones IB and II, respectively), interpreted as sand lobes deposited from sand-rich turbidity currents in the Balder Deep Sea Fan Complex. Both sands were oil bearing down to an OWC at 1785 m (1760 m MSL). Some thin sands from about 1705 m to 1720 m, overlying the massive sands, also appeared to be oil-bearing, and there were good shows on a core three meter below the OWC.

Nine cores were taken in the interval 1722.5 m to 1800.4 m in the Heimdal Formation. Cores 1 and 4 had no recovery; the remaining cores retrieved a total of 41.7 m. No wire line fluid samples were taken.

The well was permanently abandoned on 16 October as an oil appraisal well.

Testing

One production test was performed in the interval 1752 to 1767 m in the lower massive sand of the Heimdal Formation. It produced 418 Sm³ oil and 18690 Sm³ gas/day with traces of sand through a 38/64" choke. The GOR was 45 Sm³/Sm³, the oil gravity was 25 deg API (0.90 g/cm³), and the gas gravity was 0.7 (air = 1). No H₂S or inert gas was detected.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
200.00	1950.00

Cuttings available for sampling?	YES
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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
2	1730.2	1734.2	[m]
3	1737.0	1740.0	[m]
4	1742.5	1753.3	[m]
5	1756.0	1757.0	[m]
6	1762.3	1771.7	[m]
7	1771.6	1778.4	[m]
8	1781.2	1788.0	[m]
9	1791.0	1798.0	[m]

Total core sample length [m]	48.8
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1635.0	[m]	SWC	
1650.0	[m]	SWC	
1652.0	[m]	SWC	
1660.0	[m]	SWC	
1675.0	[m]	SWC	
1679.5	[m]	SWC	
1684.5	[m]	SWC	
1690.0	[m]	DC	
1693.0	[m]	SWC	
1700.0	[m]	DC	
1702.5	[m]	SWC	
1709.5	[m]	SWC	
1710.0	[m]	DC	
1714.0	[m]	SWC	
1715.0	[m]	DC	
1717.0	[m]	SWC	
1720.0	[m]	DC	
1721.0	[m]	SWC	
1725.0	[m]	DC	
1728.2	[m]	C	
1730.0	[m]	DC	



1730.3 [m]	C	
1730.7 [m]	C	
1731.4 [m]	C	CGG
1732.0 [m]	C	
1732.5 [m]	C	
1737.0 [m]	DC	
1737.0 [m]	C	
1737.0 [m]	SWC	
1738.0 [m]	C	
1739.0 [m]	C	
1739.3 [m]	C	
1740.0 [m]	C	
1779.0 [m]	SWC	
1783.0 [m]	SWC	
1835.0 [m]	SWC	
1839.0 [m]	SWC	
1849.0 [m]	SWC	
1850.0 [m]	DC	
1852.0 [m]	SWC	
1888.0 [m]	SWC	
1891.0 [m]	SWC	
1895.0 [m]	DC	
1903.0 [m]	SWC	
1905.0 [m]	DC	
1910.0 [m]	DC	
1911.0 [m]	SWC	
1914.0 [m]	SWC	
1915.0 [m]	DC	
1920.0 [m]	DC	
1925.0 [m]	DC	

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST	DST1	1720.00	1735.00		11.09.1979 - 13:00	YES

**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
151	NORDLAND GP
585	UTSIRA FM
725	NO FORMAL NAME
750	HORDALAND GP
750	SKADE FM
916	NO FORMAL NAME
948	SKADE FM
968	NO FORMAL NAME
1049	SKADE FM
1072	NO FORMAL NAME
1655	ROGALAND GP
1655	BALDER FM
1675	INTRA BALDER FM SS
1677	BALDER FM
1693	INTRA BALDER FM SS
1698	BALDER FM
1699	SELE FM
1712	LISTA FM
1722	HEIMDAL FM
1895	LISTA FM
1915	VÅLE FM
1925	SHETLAND GP
1925	EKOFISK FM

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

Document name	Document format	Document size [MB]
369_01_WDSS_General_Information	pdf	0.10
369_02_WDSS_completion_log	pdf	0.15

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

Document name	Document format	Document size [MB]
369_01_25_11_8_Completion_log	pdf	1.13





369 01 25 11 8 Completion Report	pdf	7.94
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Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	1752	1767	15.1

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				52

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	418		0.900		46

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	700	1360
CDL CNL	1350	1947
CDM	1357	1933
DLL MLL	1350	1947
IEL BHC	189	1943
VELOCITY	189	1943

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	189.0	36	189.0	0.00	LOT
SURF.COND.	13 3/8	390.0	17 1/2	402.0	1.58	LOT
INTERM.	9 5/8	1367.0	12 1/4	1383.0	1.78	LOT
INTERM.	7	1930.0	8 1/2	1950.0	0.00	LOT

Drilling mud





Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
402	1.04	120.0		waterbased	
689	1.07	32.0		waterbased	
1383	1.10			waterbased	
1723	1.15			waterbased	
1751	1.13			waterbased	
1950	1.14			waterbased	