

PL309 B Relinquishment report - Fjolne prospect

Tittel:		
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1 Key license history

Production license (PL) 309 B was awarded 4th February 2011 (APA 2010) to Statoil Petroleum AS (operator), Petoro and ConocoPhillips. The license was awarded as an extension of PL309. Initial work obligations were aligned with PL309. Work obligations are fulfilled. The license has decided to fully relinquish PL309 B because Fjolne prospect is not a commercially attractive target for the license; it only extends into PL309 B area in the maximum hydrocarbon filling scenario. The main part of Fjolne prospect remains now in open area, previously PL309 acreage. After relinquishment the whole Fjolne prospect lies now in open acreage.

Activities in PL309 B have been covered in PL309 and 309 C committee meetings.

Production license	309 B
NPDID production license	20108378
Status	INACTIVE
Main area	North sea
Licensing activity	TFO2010
Date granted	04.02.2011
Prod.lic. valid to date	01.01.2015
Original area [km2]	26.989
Current area [km2]	0.000

Rettighetshaver gyldig fra dato	Rettighetshaver gyldig til dato	Selskap, langnavn	Andel [%]
04.02.2011	01.01.2015	Statoil Petroleum AS	63.817180
		Petoro AS	33.600000
		ConocoPhillips Skandinavia AS	2.582820

Arbeidsprogram	Beslutning	Oppgave status	Oppgave frist	Brønnbane hvis boret
	Utløp av initiell periode	Godk jent	12.12.2012	

2 Database

The main seismic survey, ST06M01, forms the basis of the subsurface work carried out in the license. The quality of the dataset is good. No new subsurface information has been acquired during the license period to change the subsurface understanding.

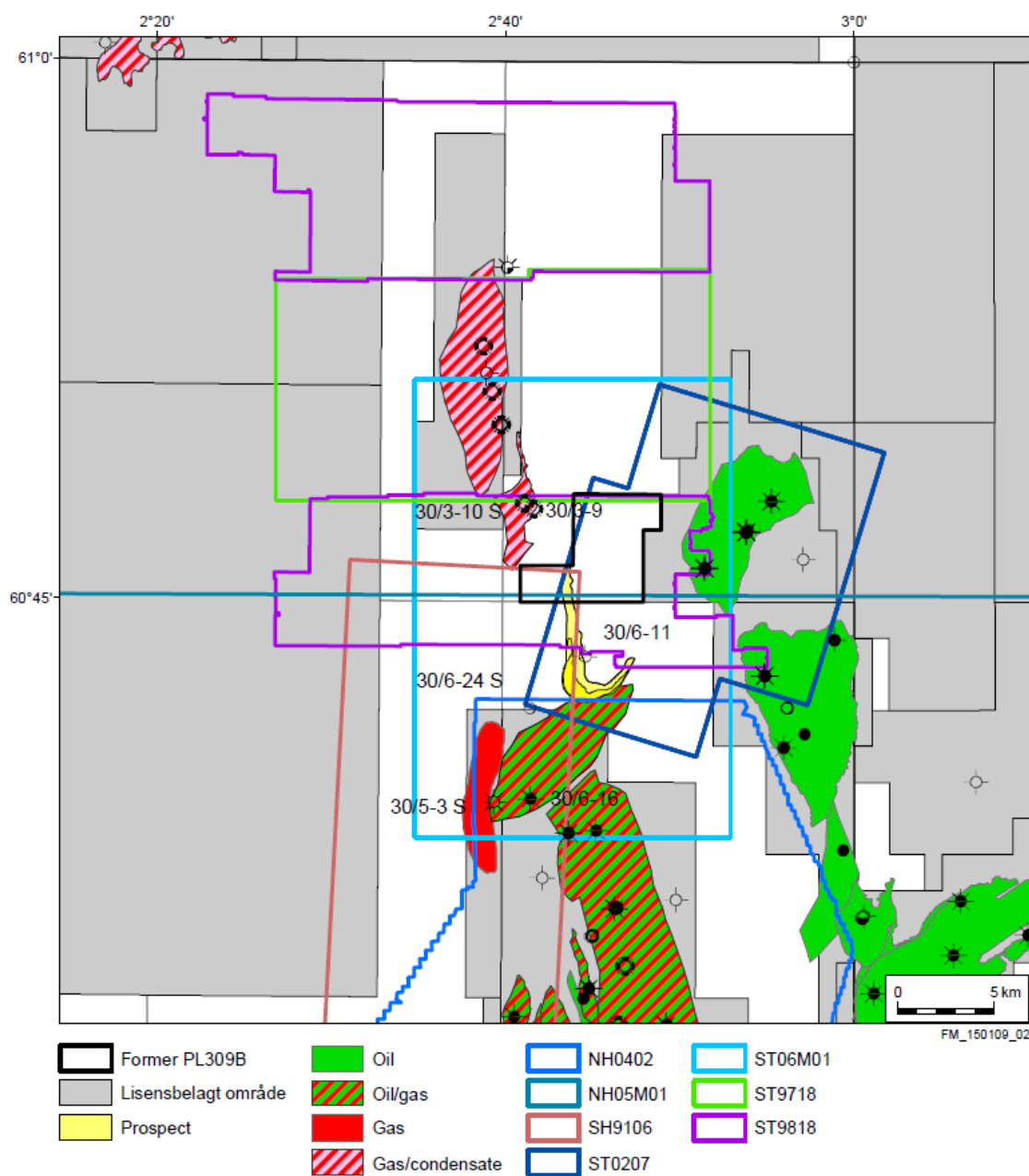


Figure 1: Wells and seismic overview

3D seismic datasets

3D seismic datasets	Year
SH9106	1991
ST9718	1997
ST9818	1998
ST0207	2002
NH0402	2004
ST06M01	2006

3 Review of geological framework

There has neither been performed significant studies nor block evaluation since the award of the license. No new information, nor seismic or wells has been drilled in the area that could have altered the understanding of the prospect since the license application. The operator has the same subsurface understanding of the prospect now as upon license award. Only the maximum filling scenario of the prospect exists inside PL309 B.

4 Prospect review

The Fjolne prospect is a well-defined rotated Jurassic fault block on the western margin of the Horda platform in block 30/3 and 30/6, see Figure 1 in the appendix.

Fjolne prospect reservoirs are defined within Oseberg and Eive Formations, see Figure 2 in the appendix. The main portion of the prospect is located within former PL309 in block 30/6. Only the maximum filling scenario of the prospects exists inside PL 309 B. Exploration well 30/6-11 dictates reservoir properties and the minimum water-up-to depth. The main risk for the Fjolne prospect is related to top seal. The operator has the same understanding of the risk and the volume estimates as upon time of application.

Prospect data for the entire Fjolne prospect is included in table 1.

In the APA 2010 application an exploration opportunity in the Lunde and Lomvi Formations was described within PL 309 B. The operator's current view on hydrocarbon potential in Triassic is limited to the 30/5-3 S Corvus discovery.

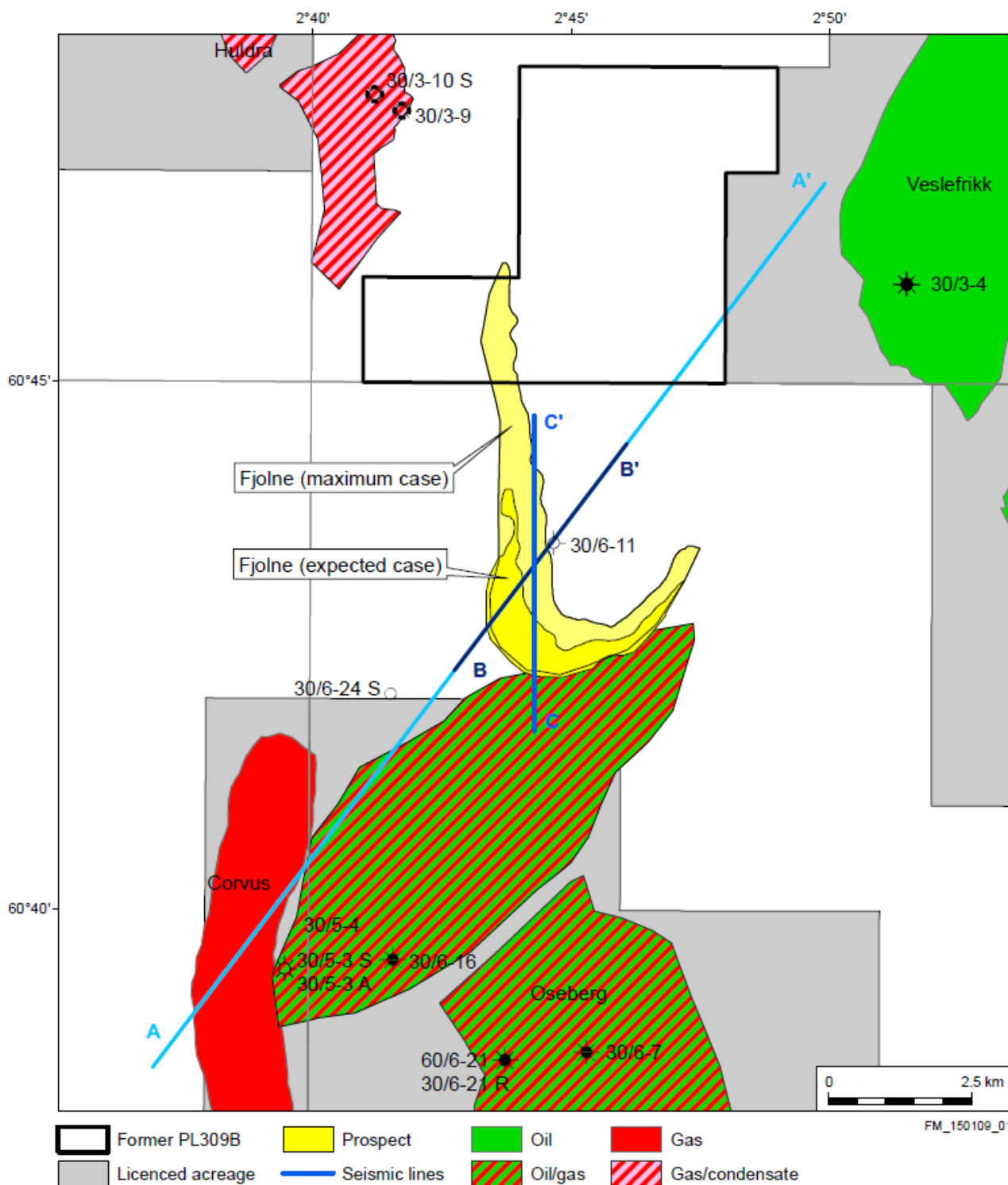


Figure 2: Fjolne prospect outline

5 Technical evaluation

A valuation of the entire Fjolne prospect was performed in 2012 and was based on the simplest possible identified development concept, comprising a subsea development with a single slot template, one production well and tie in to Oseberg Øst (12 km.). The value of Fjolne was established to very marginal.

The tech.ec is given as 100 % project and the assumptions used are:

- Exploration Drilling in 2016
- Pilot well used as base case – possible upside in keeper well
- Tie-in to Oseberg Øst
- Risk of no exploration drilling 50%
- Cost of capital 7%

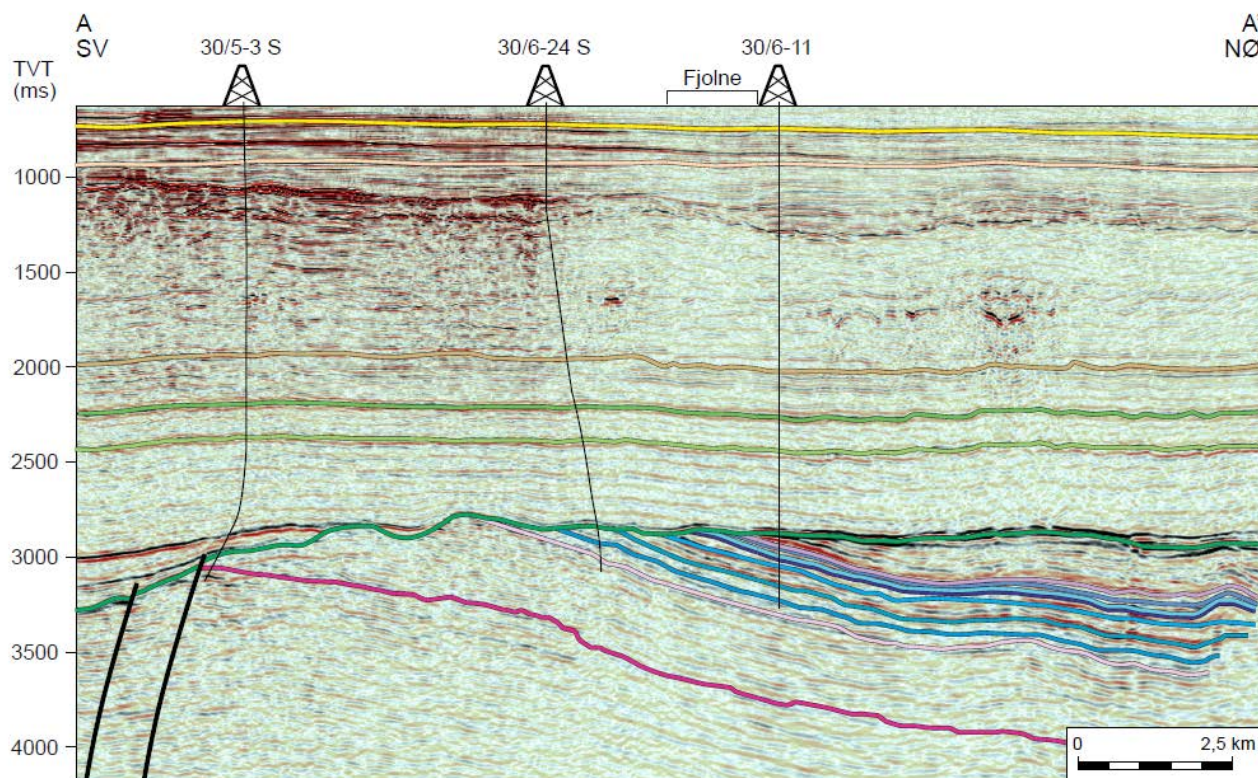
Table 3: Key economic figures:

Main Table of Economic Results		All amounts in MNOK2012		
		After Tax		
		NPV 7%	IRR (%)	Break-even oil price USD2012/boe
		Project		
Fjolne prospect		35	12%	76

6 Conclusions

The work program for PL309 B is fulfilled. At present, the hydrocarbon potential of the Fjolne prospect does not justify further exploration. PL309 B was fully relinquished from 1.1.2015.

7 Appendix

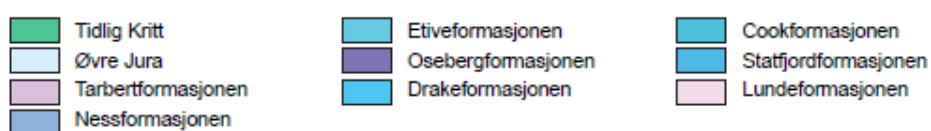
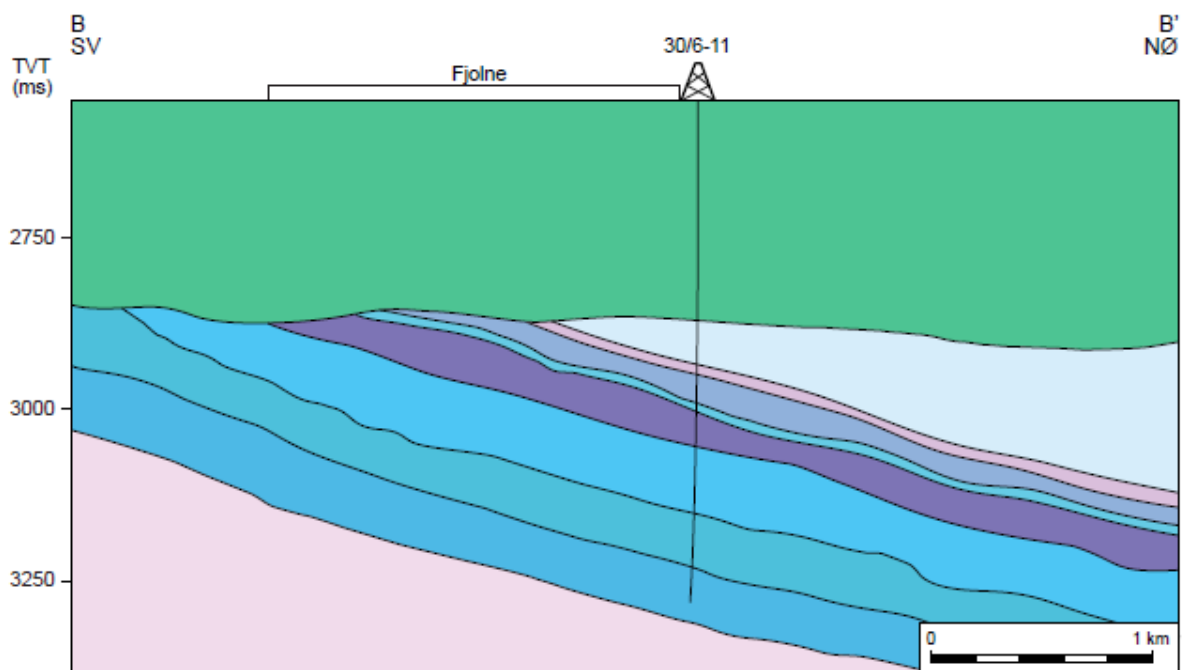
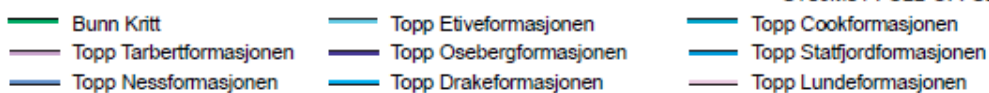
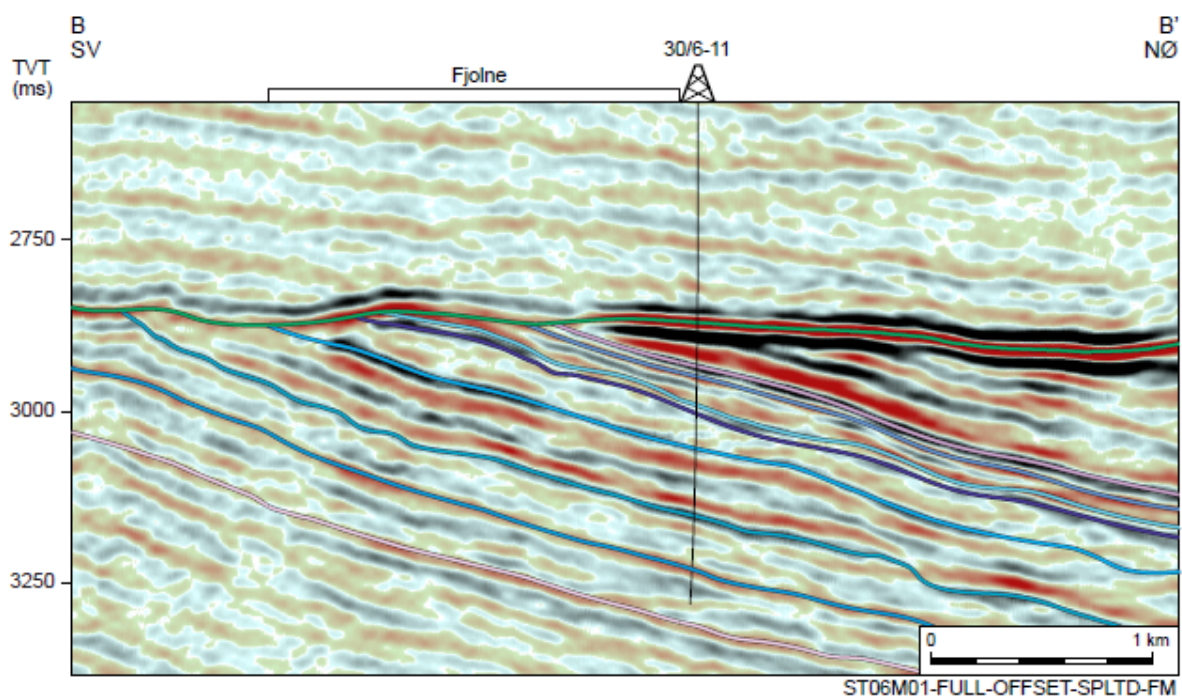


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ST06M01-FULL-OFFSET-SPLTD-FM

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|--|---|--|
|  Topp Utsiraformasjonen |  Bunn Kritt |  Topp Drakeformasjonen |
|  Topp Hordalandgruppen |  Topp Tarbertformasjonen |  Topp Cookformasjonen |
|  Topp Balderformasjonen |  Topp Nessformasjonen |  Topp Staffjordformasjonen |
|  Topp Shetlandgruppen |  Topp Etiveformasjonen |  Topp Lundefformasjonen |
|  Topp Kyrreformasjonen |  Topp Osebergformasjonen |  Topp Lomviformasjonen |

Appendix 1: Regional seismic cross section through 30/5-3 S, 30/6-24 S and 30/6-11.



Appendix 2: Seismic section and geoseismic section through the Fjolne prospect.

Table 5: Prospect data (Enclose map)										
Block	30/2	Prospect name	306 Fjølne ORE	Discovery/Prospect/Lead	Prospect	Prospect ID (or New?)	NPD will insert value	NPD approved (Y/N)		
Play name	NPD will insert value	New Play (Y/N)	No	Outside play (Y/N)	No					
Oil, Gas or O&G case:	Oil	Reported by company	Statoil	Reference document				Assessment year	2013	
This is case no.:		Structural element	Hordeplattformen	Type of trap	HW 3-way	Water depth [m MSL] (>0)	110	Seismic database (2D/3D)	3D	
Resources IN PLACE and RECOVERABLE			Main phase			Associated phase				
Volumes, this case			Low (P90)	Base, Mode	Base, Mean	High (P10)	Low (P90)	Base, Mode	Base, Mean	High (P10)
In place resources	Oil [10 ⁶ Sm ³] (>0.00)	0.57	3.15	4.03	8.47	0.24	1.34	1.71	3.60	
	Gas [10 ⁹ Sm ³] (>0.00)	0.16	0.90	1.17	2.44	0.12	0.64	0.82	1.73	
Recoverable resources	Oil [10 ⁶ Sm ³] (>0.00)	0.16	0.90	1.17	2.44	0.12	0.64	0.82	1.73	
	Gas [10 ⁹ Sm ³] (>0.00)	0.16	0.90	1.17	2.44	0.12	0.64	0.82	1.73	
Reservoir Chrono (from)	Middle Jurassic	Reservoir litho (from)	Tarbert	Source Rock, chrono primary	Tithonian	Source Rock, litho primary	Draupne	Seal, Chrono	Oxfordian	
Reservoir Chrono (to)	Middle Jurassic	Reservoir litho (to)	Tarbert	Source Rock, chrono secondary	Oxfordian	Source Rock, litho secondary	Heather	Seal, Litho	Heather	
Probability (fraction)										
Technical (oil + gas + oil & gas case) (0.00-1.00)	0.30	Oil case (0.00-1.00)	0.30	Gas case (0.00-1.00)	0.00	Oil & Gas case (0.00-1.00)	0.00			
Reservoir (P1) (0.00-1.00)	1.00	Trap (P2) (0.00-1.00)	0.30	Charge (P3) (0.00-1.00)	1.00	Retention (P4) (0.00-1.00)	1.00			
Parameters:			Low (P90)	Base	High (P10)	Note a mismatch between reported Low and High from the application as the numbers in application which was typed in was related to P00 and P100.				
Depth to top of prospect [m MSL] (> 0)			3121							
Area of closure [km ²] (> 0.0)	0.53		2.0		3.6					
Reservoir thickness [m] (> 0)			102							
HC column in prospect [m] (> 0)	95		160		228					
Gross rock vol. [10 ⁶ m ³] (> 0.000)	14.723		103.070		215.228					
Net / Gross [fraction] (0.00-1.00)	0.67		0.74		0.80					
Porosity [fraction] (0.00-1.00)	0.17		0.18		0.19					
Permeability [mD] (> 0.0)										
Water Saturation [fraction] (0.00-1.00)	0.25		0.32		0.40					
Bg [Rm3/Sm3] (< 1.0000)										
1/Bo [Sm3/Rm3] (< 1.00)	0.41		0.43		0.45					
GOR, free gas [Sm ³ /Sm ³] (> 0)										
GOR, oil [Sm ³ /Sm ³] (> 0)	403		426		448					
Recov. factor, oil main phase [fraction] (0.00-1.00)	0.24		0.29		0.34					
Recov. factor, gas ass. phase [fraction] (0.00-1.00)	0.42		0.48		0.54					
Recov. factor, gas main phase [fraction] (0.00-1.00)										
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)										
Temperature, top res [°C] (>0)	120									
Pressure, top res [bar] (>0)	435									
Cut off criteria for N/G calculation	1.	2.	3.							
For NPD use:										
Innrapr. av geolog-int:	NPD will insert value	Registrert - int:	NPD will insert value	Kart oppdatert	NPD will insert value					
Dato:	NPD will insert value	Registrert Dato:	NPD will insert value	Kart dato	NPD will insert value					
				Kart nr	NPD will insert value					

Appendix 3: Prospect data for Fjølne prospect (entire prospect)

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