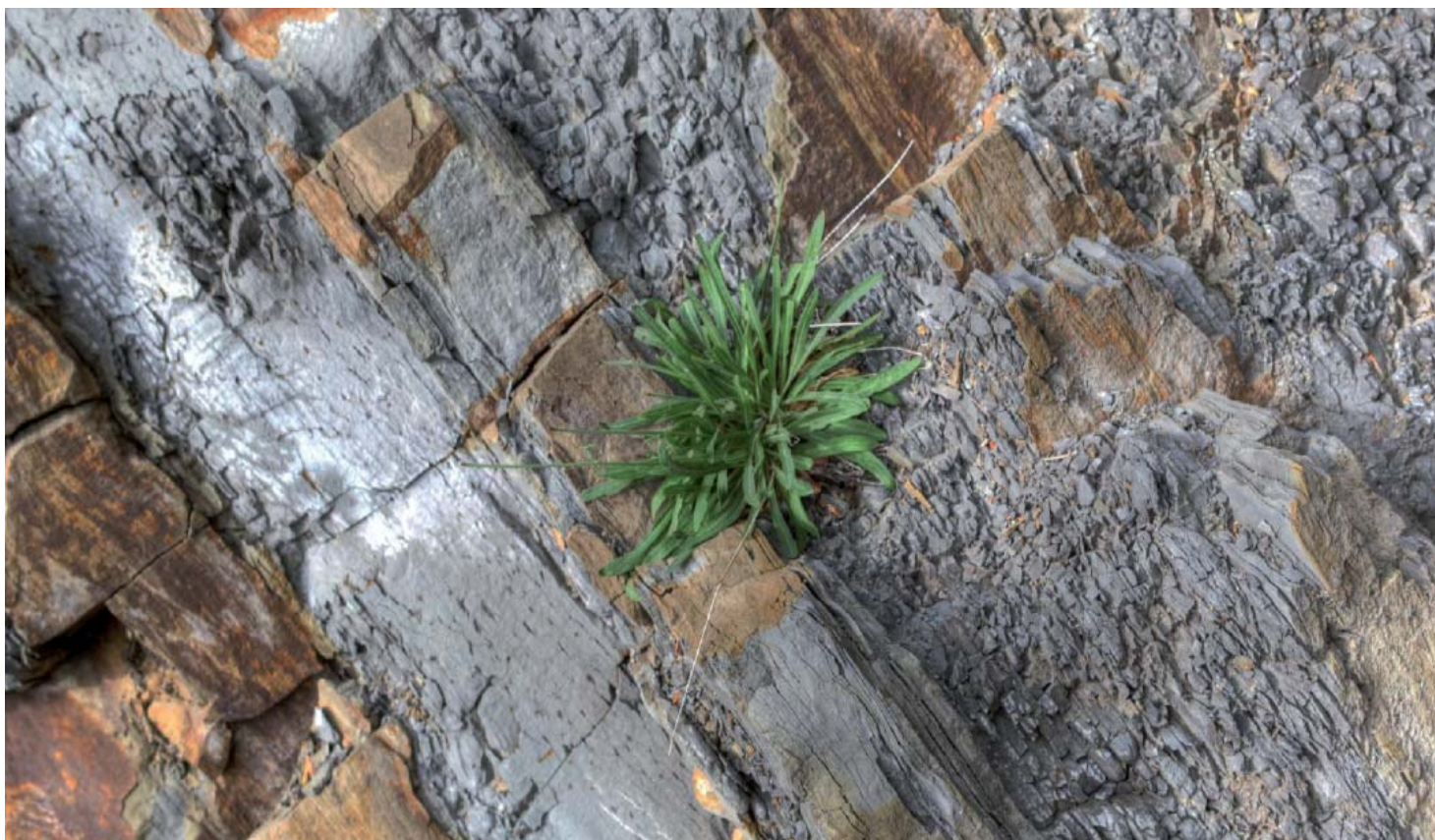


RELINQUISHMENT REPORT FOR PRODUCTION LICENCE 564 BLOCK 7123/4



PL564 Relinquishment Report

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1 License History and Summary

The Production Licence 564, part of block 7123/4, is located next to the Tornerose discovery along the Finnmark Platform in the Hammerfest Basin. The licence was awarded on 19th February 2010 based on an AMI application with Wintershall Norge ASA in the APA 2009 licencing round. The awarded application resulted in a licence group made up of OMV (Norge) AS (operator 50%), Wintershall Norge AS (30%) and North Energy ASA (20%). The work commitment for the initial term of the licence was to acquire 3D seismic and carry out relevant geological and geophysical studies for a drill-or-drop decision within 2 years.

The AMI application was based on a stratigraphic prospect in 1) the Cretaceous Knurr Formation and 2) a faulted structure spanning prospectivity from the Kobbe Formation up to the middle Jurassic Realgrunnen sub Group. Resource estimates from the APA 2009 application is shown in Table 1.1.

Table 1.1 Resource estimates of PL 564 in the PA 2009 application

Prospect	Phase	Resources In Place			Resources Recoverable		
		Low	Base	High	Low	Base	High
Knurre	Oil	7	43	96	2	16	37
Kvitungen Realgrunnen Sg	Oil	12	26	39	4	9	15
Kvitungen Realgrunnen Sg	Gas	4	8	12	3	6	9
Kvitungen Snadd Fm.	Gas	2	4	6	1	2	3
Kvitungen Kobbe	Gas	2	7	11	1	3	6
* Oil 10 ⁸ Sm ³							
* Gas 10 ⁹ Sm ³							

To align drill-or-drop with the neighbouring license PL594 which has been relinquished, the license group applied for a 1 year extension of the PL564 with new drill-or-drop decision 19th February 2013, and new initial period 19th February 2017. Proposed work program for the extension period was to carry out rock physics and inversion studies. Due to delay with the inversion work the license group were approved a 6 months extension of drill-or-drop to August 19th 2013.

Reservoir studies, integrated with seismic interpretation and petrophysics from the nearby wells, showed that reservoir potential within the Knurr Formations varies. The largest upside potential lies in the Knurr Formation, hence, a seismic inversion study was carried out to de-risk possible distal reservoir sand away from the Finnmark platform. However, due to lack of suitable data the inversion results are inconclusive. Promising reservoir quality was expected within the Stø Formation. Resources were calculated for the Kvitungen and Eagle prospects at the Stø Formation level and two Cretaceous leads, Knurr and Knurrungen, in the Knurr Formation. Table 4.1 and Table 4.2 summarize the resources estimates. These resources carry significant risk and were considered too small to lead to an economic development in the license.

All outstanding work commitments for the license have been fulfilled by acquisition and reprocessing of pre-existing 3D seismic data, relevant geological and geophysical studies and seismic inversion.

2 Database

2.1 Seismic

The geophysical evaluation and interpretation of the PL564 is based on a 862 km² dataset that is a merge and re-processing of two separate datasets; ST05M09 and OMV1004. The previous covering part of the Tornerose discovery and was purchased from adjacent license holders (PL488), while the latter was acquired by OMV in 2010. Figure 2.1 displays the coverage of this 3D dataset.

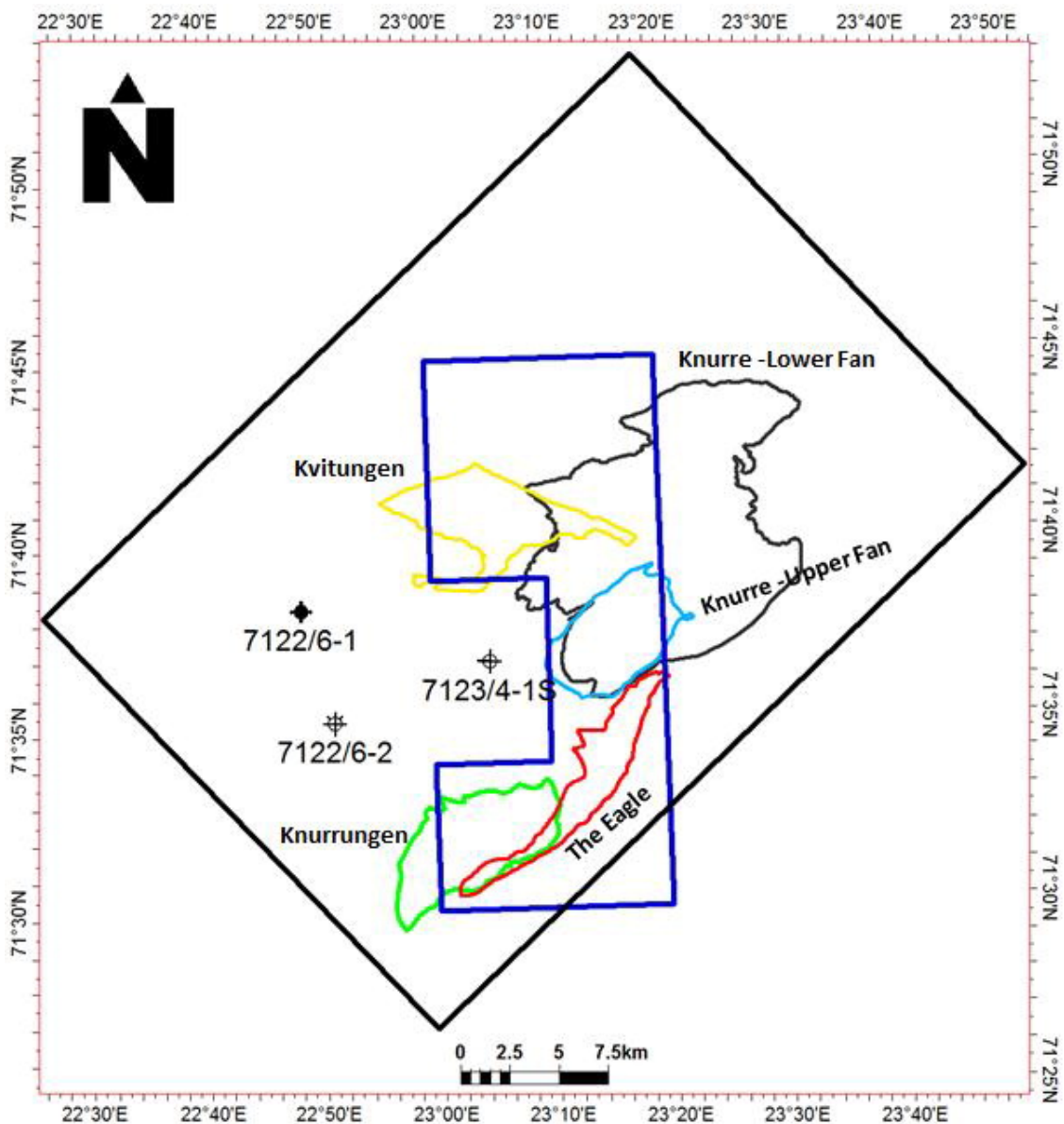


Figure 2.1 3D Seismic Database. Outline of the 862 km² 3D seismic survey applied in the prospect evaluation

2.2 Wells

The well database used in the evaluation of the PL564 includes all the nearby wells over the area in addition to a selection of wells along the Finnmark Platform and Loppa High. See Figure 2.2.

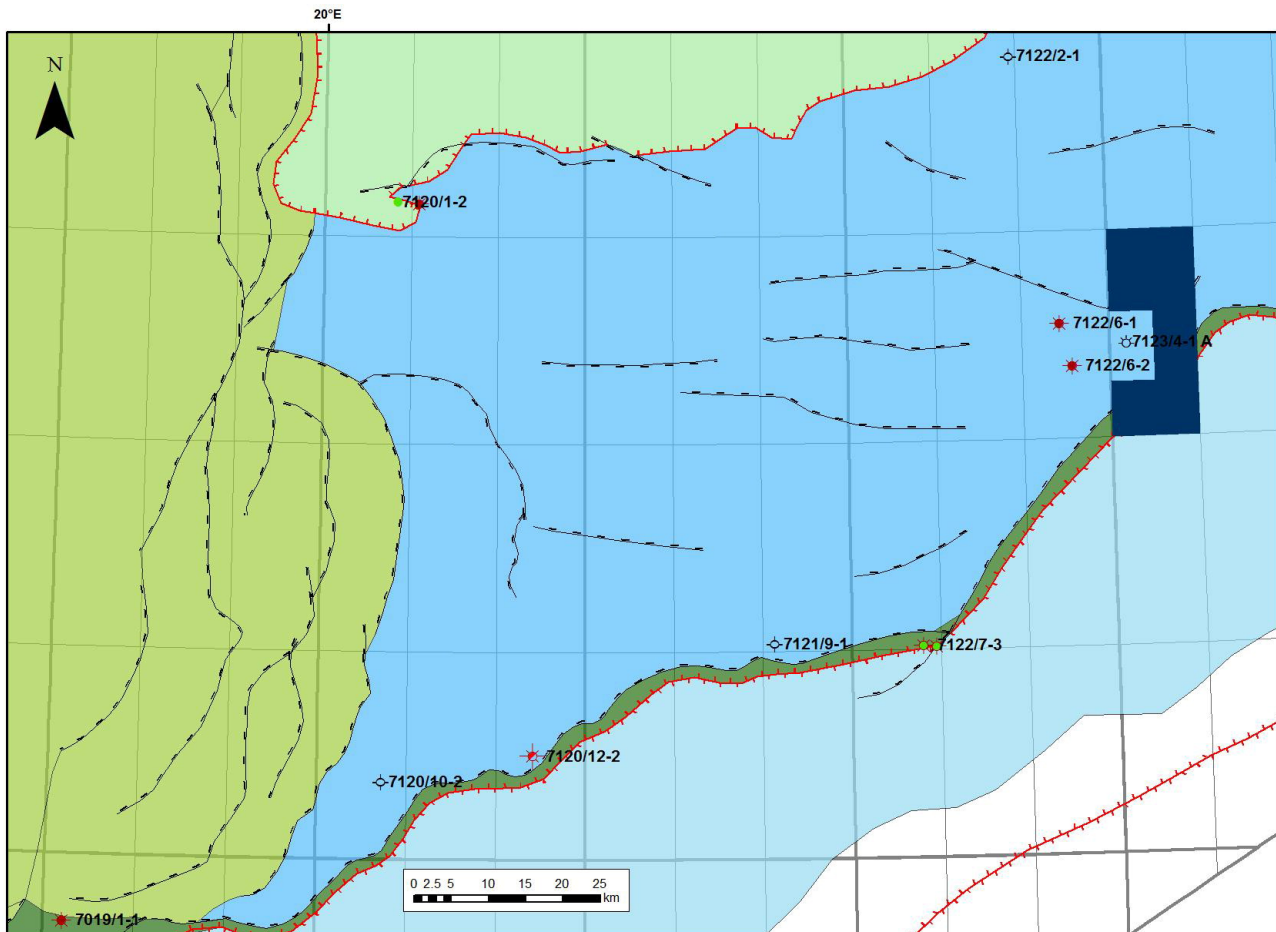


Figure 2.2 Well Database. Overview of the key wells that have been used in the evaluation of PL 564

3 Geological Framwork

PL564 is located along the Finnmark Platform in the Hammerfest Basin. The license straddles the SW - NE trending basin bounding Finnmark Fault complex. The southern half of the license lies on the Permo-Triassic Finnmark Platform and the northern half of the license lies within the Hammerfest Basin as seen on the structural elements map in Figure 2.2. There is a 'bend' in the Finnmark fault through the license area and this is accommodated by a series of breached relay ramps and fault splays within the PL 564 license acreage. The dominant period of fault activity appears to have been in the mid to late Jurassic, however, many of the faults remained active until at least the mid to late Cretaceous.

The general stratigraphy of the area (modified after Nødtvedt et al. (1993) and Larssen et al. (2002)) is shown in Figure 3.1. In general most of the stratigraphic intervals in the Barents Sea are present in the PL564 area.

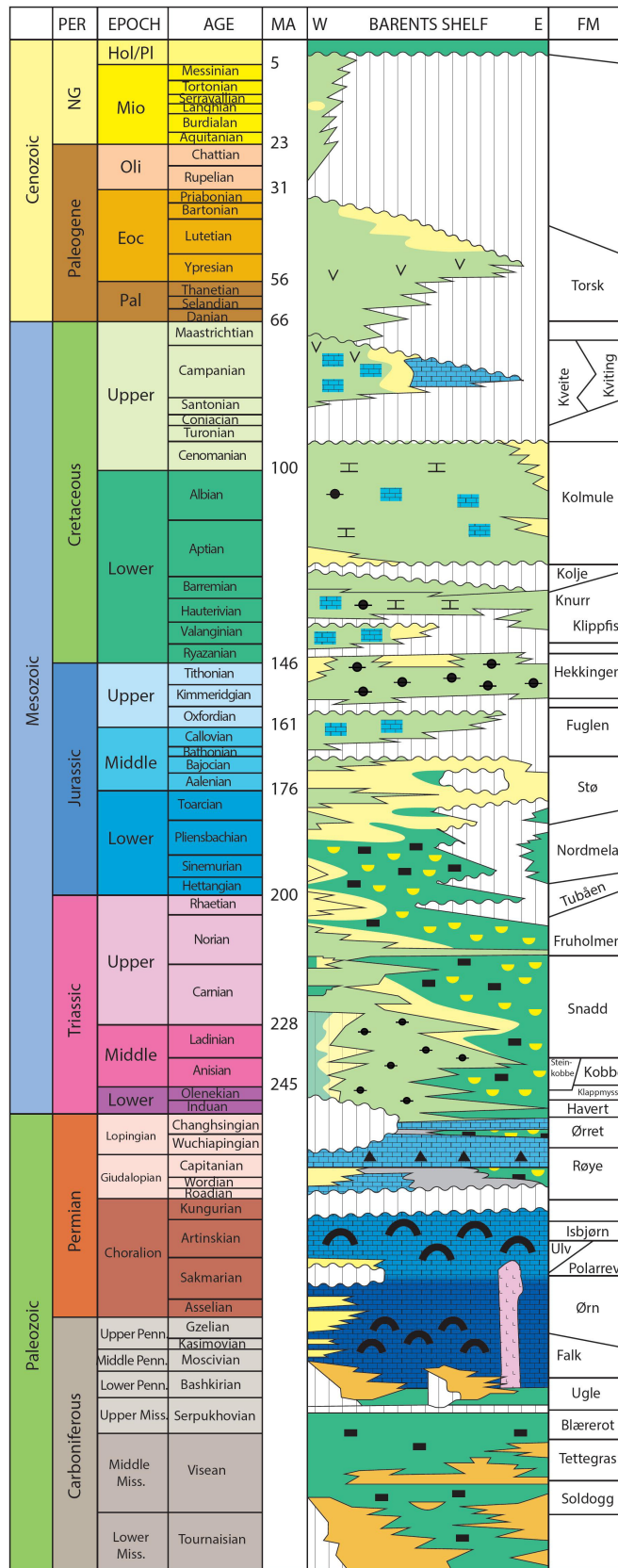


Figure 3.1 Barents Sea Stratigraphy. Modified after Nødtvedt et al. (1993) and Larssen et al. (2002)

4 Prospect Evaluation

The Kvitungen structure is a well-defined rotated fault block with main reservoir levels in the Jurassic Realgrunnen subgroup. Secondary reservoirs are defined in the Triassic Snadd and Kobbe Formations.

The Eagle prospect is located in the hanging wall of the Finnmark fault complex with main reservoir level in the Jurassic Realgrunnen subgroup (Figure 4.1A and Figure 4.2)

The Cretaceous prospects in the Knurr Formation are all stratigraphic traps bounded by the Finnmark fault complex. The location of the Knurre prospect has changed after evaluation by 3D seismic compared to the APA 2009 application. However, the prospect lies within the same fan system which comprises several pulses of sediment deposition, hence the distinction of upper and lower fan of Knurre prospect (Figure 4.1B and Figure 4.3). Updated resource estimates in NPD format are found in section 7 Appendices.

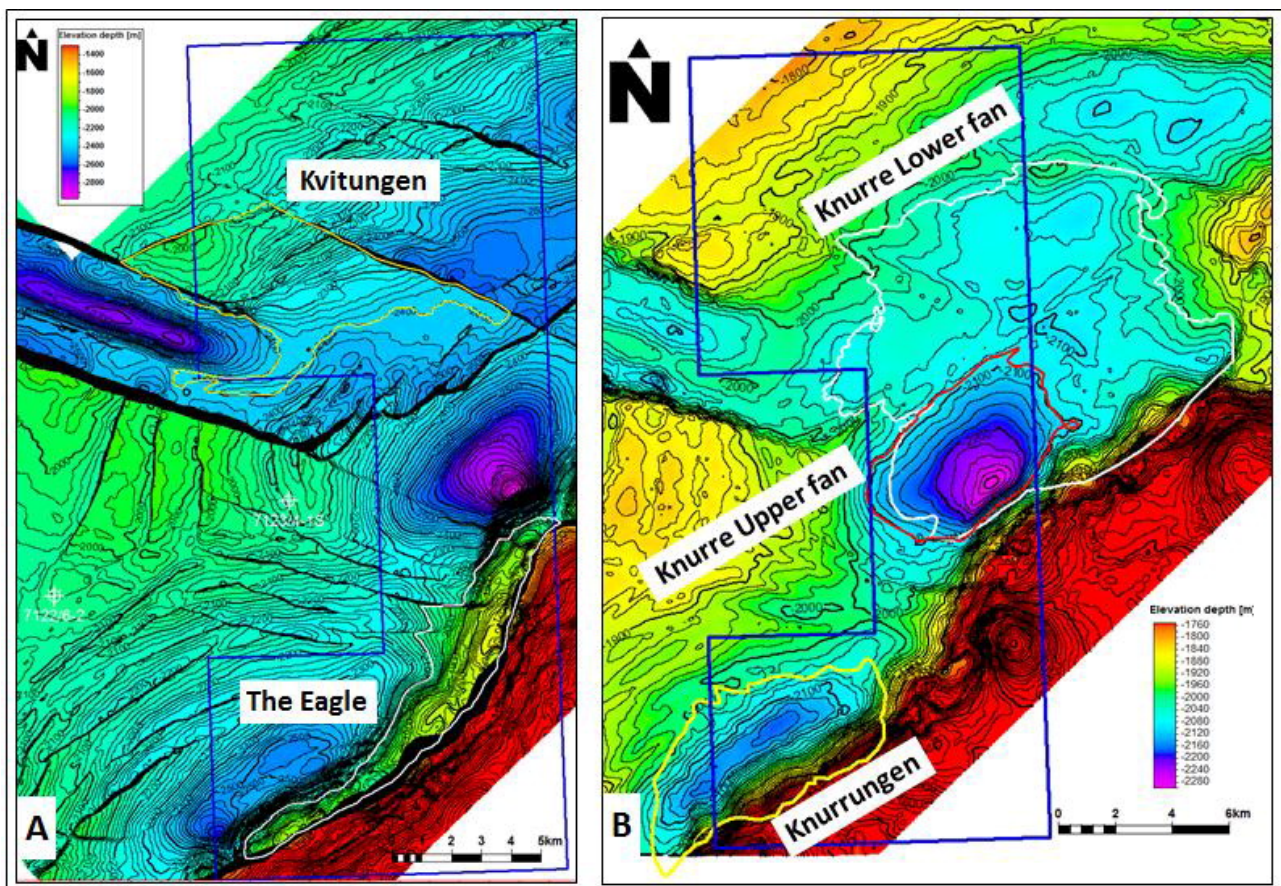


Figure 4.1 Top Realgrunnen Subgroup and Top Knurr Formation Depth Maps. Top Realgrunnen subgroup and Top Knurr Formation depth maps showing prospectivity in A) the middle Jurassic Upper Realgrunnen Subgroup and B) the Cretaceous Knurr Formation.

A seismic inversion study was carried out to de-risk and evaluate license uplift potential by the Knurrungen prospect. However, the inversion results were inconclusive and the prospect is still regarded to have a high risk and a low upside potential Figure 4.4.

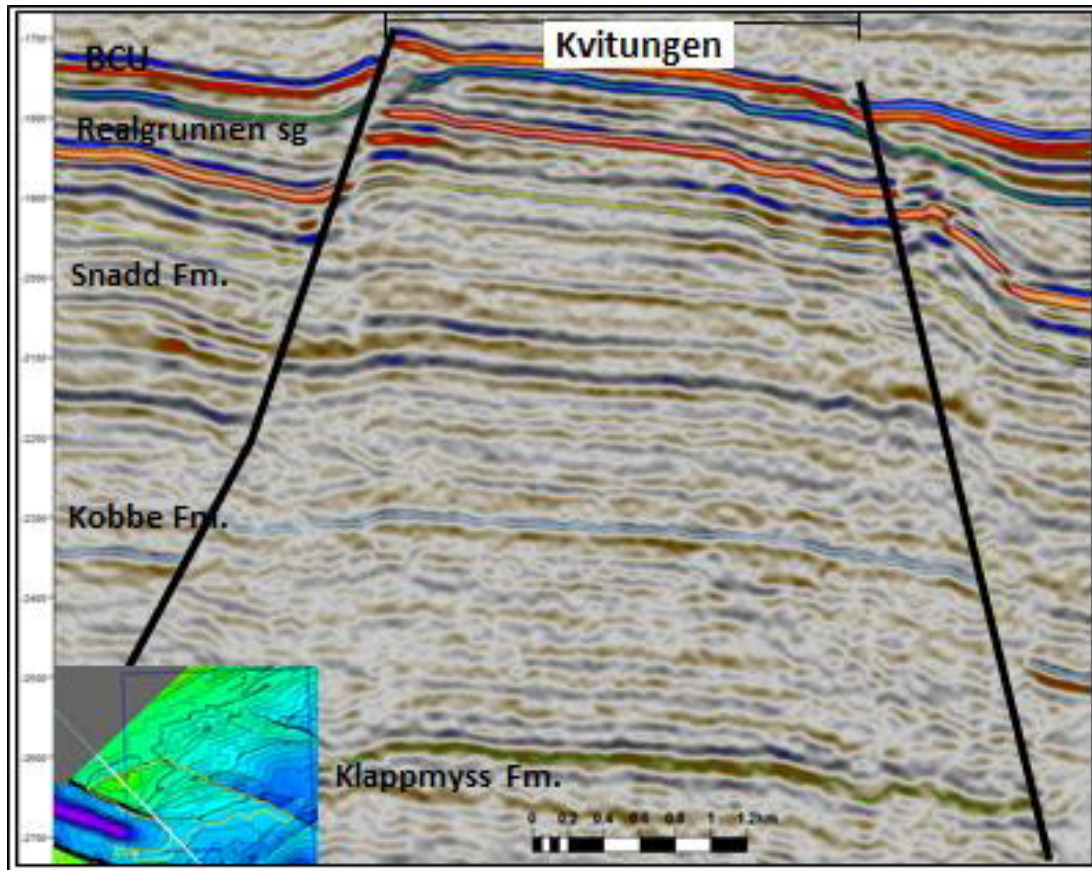


Figure 4.2 Seismic Section of the Jurassic Kvitungen Prospect and Triassic Secondary Reservoirs

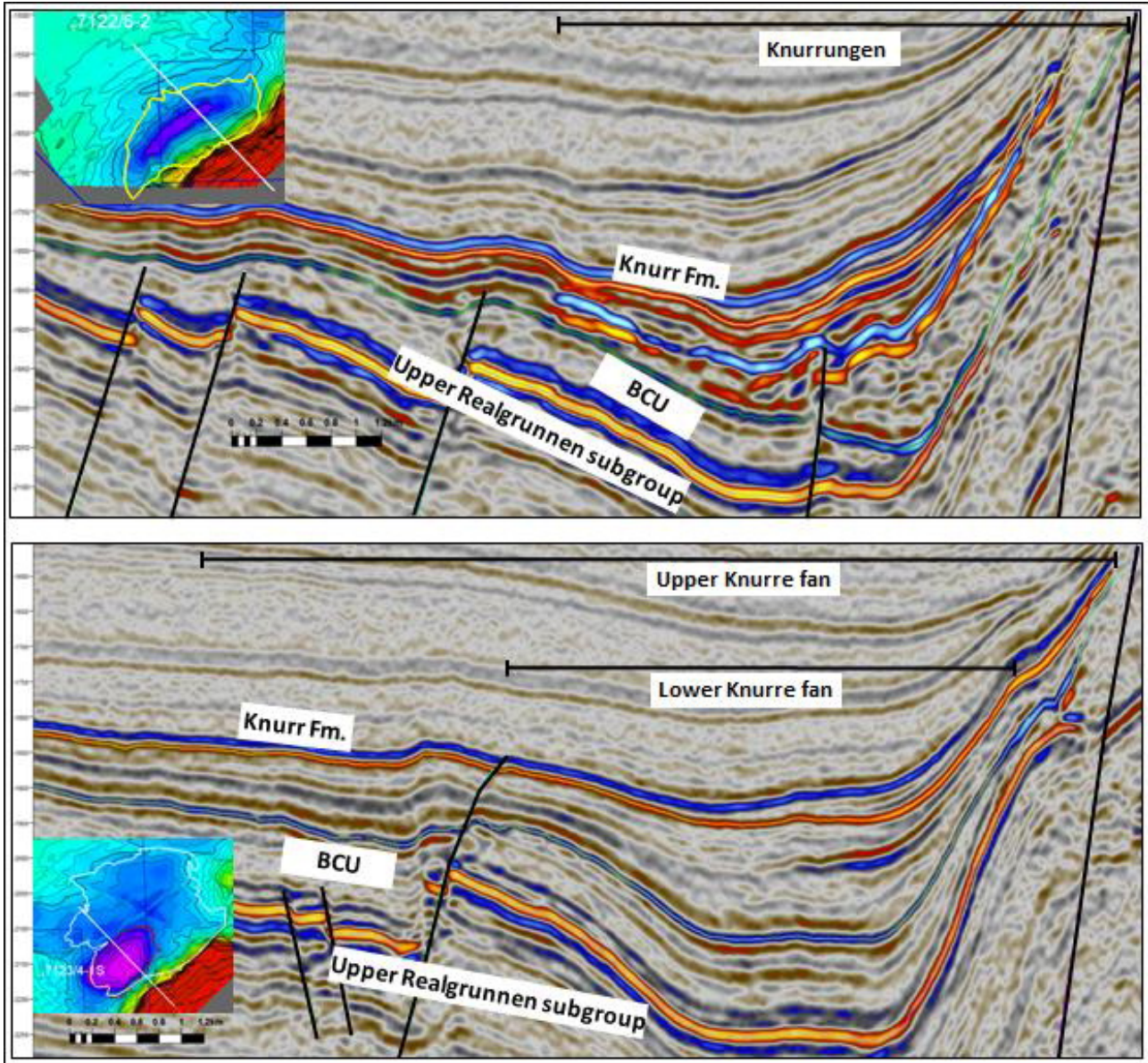


Figure 4.3 Seismic Sections of Cetaceous Prospects in PL564

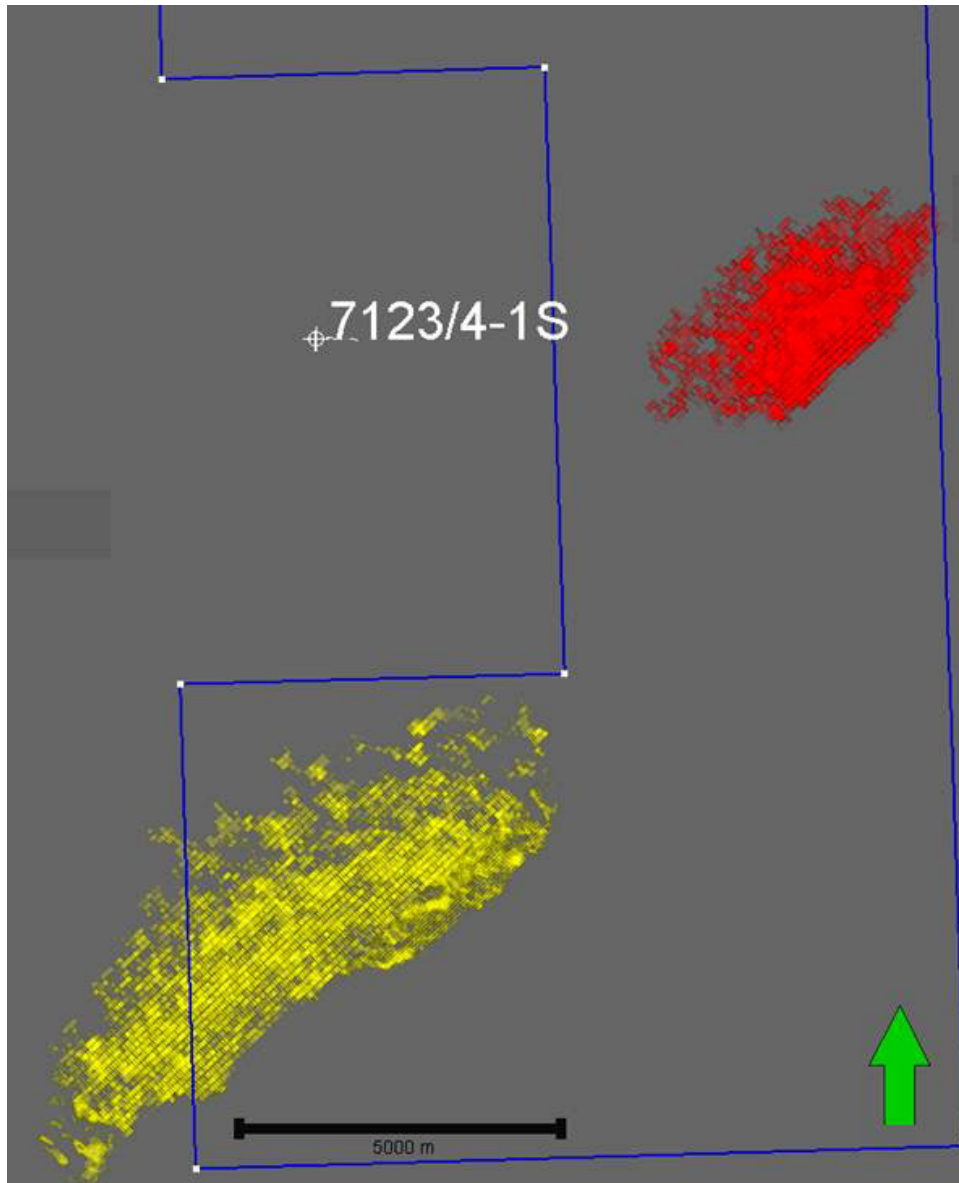


Figure 4.4 Delineation of Potential Sand Bodies from Seismic Inversion

Table 4.1 Updated volumes for PL 564

Prospect	Phase	Resources In Place			Resources Recoverable		
		Low	Base	High	Low	Base	High
Knurre Upper Fan	Oil	0.4	20	35	0.1	7	12
Knurre Lower Fan	Oil	2	25	63	1	9	23
Knurrungen	Oil	0.6	26	68	0.2	9	24
Kvitungen Realgrunnen Sg	Oil	5	19	37	2	7	13
Kvitungen Realgrunnen Sg	Gas	4	8	12	3	6	9
Kvitungen Snadd Fm.	Gas				0.1	0.4	1.9
Kvitungen Kobbe	Gas				0.5	1.4	2.5
The Eagle	Oil	0.3	7	19	0.1	2	7
* Oil 10 ⁶ Sm ³							
* Gas 10 ⁹ Sm ³							

5 Technical Evaluations

The technical prospect evaluations in PL564 show low volume potential combined with high risk. Thus, the view of OMV (Norge) AS is that there is a low chance of success and no positive economical outcomes are seen. Based on the aforementioned view no formal technical economical evaluation has been performed.

6 Conclusions

A full geophysical and geological analysis of the license has been completed. Unfortunately the mapped prospects and leads, with their currently estimated resources and geological risk, are not economically viable to commit to a firm exploration well.

7 Appendices

Table 7.1. Prospect Data Kvitungen.

Block	Prospect name			Discovery/Prosp/Lead		Prosp ID (or New)	NPD approved?
7123/4 (part)	Kvitungen			Prospect		<i>NPD will insert data</i>	<i>NPD will insert data</i>
Play (name / new)	Structural element			Company/ reported by / Ref. doc.		Year	
<i>NPD will insert data</i>	Hammerfest			OMV (Norge) AS		2013	
Oil/Gas case	Resources IN PLACE						
Oil	Main phase			Ass. phase			
	Low	Base	High	Low	Base	High	
Oil 10 ⁶ Sm ³	5.0	19	36				
Gas 10 ⁹ Sm ³							
	Resources RECOVERABLE						
	Main phase			Ass. phase			
	Low	Base	High	Low	Base	High	
Oil 10 ⁶ Sm ³	2.0	7	13				
Gas 10 ⁹ Sm ³							
	Which fractiles are used as:		Low:	P90	High:	P10	
Type of trap	Water depth (m)		Reservoir Chrono (from - to)		Reservoir Litho (from - to)		
Structural	390		Upper Triassic - Lower Jurassic		Fruholmen - Stø Formations		
SourceRock, Chrono	SourceRock, Litho		Seal, Chrono		Seal, Litho		
Upper Jurassic	Hekkingen Formation		Upper Jurassic		Hekkingen Formation		
Seismic database (2D/3D):	3D						
	Probability of discovery:						
Technical (oil+gas case)	30 %			Prob for oil/gas case			
Probability (fraction):	Reservoir (P1)	Trap (P2)	Charge (P3)	Retention (P4)			
	0.8	0.9	0.6	0.7			
Parametres:	Low	Base	High				
Depth to top of prospect (m)	1975	1975	1975				
Area of closure (km ²)	3.0	7	10				
Reservoir thickness (m)	40	55	70				
HC column in prospect (m)	13	23	34				
Gross rock vol. (10 ⁹ m ³)	0.90	1.20	1.60				
Net / Gross (fraction)	0.40	0.60	0.80				
Porosity (fraction)	0.14	0.17	0.20				
Water Saturation (fraction)	0.40	0.30	0.20				
Bg. (<1)							
Bo. (>1)	1.05	1.06	1.07				
GOR, free gas (Sm ³ /Sm ³)							
GOR, oil (Sm ³ /Sm ³)							
Recovery factor, main phase	0.25	0.35	0.45				
Recovery factor, ass. phase							
Temperature, top res (deg C) :	70	Pressure, top res (bar) :		241			

Table 7.2. Prospect Data The Eagle.

Block	Prospect name		Discovery/Prosp/Lead	Prosp ID (or New)	NPD approved?	
7123/4 (part)	The Eagle		Prospect	<i>NPD will insert data</i>	<i>NPD will insert data</i>	
Play (name / new)	Structural element		Company/ reported by / Ref. doc.		Year	
<i>NPD will insert data</i>	Hammerfest		OMV (Norge) AS		2013	
Oil/Gas case	Resources IN PLACE					
Oil	Main phase			Ass. phase		
	Low	Base	High	Low	Base	High
Oil 10 ⁶ Sm ³	0.3	7	19			
Gas 10 ⁹ Sm ³						
	Resources RECOVERABLE					
	Main phase			Ass. phase		
	Low	Base	High	Low	Base	High
Oil 10 ⁶ Sm ³	0.1	2	7			
Gas 10 ⁹ Sm ³						
	Which fractiles are used as:		Low:	P90	High:	P10
Type of trap	Water depth (m)		Reservoir Chrono (from - to)		Reservoir Litho (from - to)	
Structural	390		Upper Triassic - Lower Jurassic		Fruholmen - Stø Formations	
SourceRock, Chrono	SourceRock, Litho		Seal, Chrono		Seal, Litho	
Upper Jurassic	Hekkingen Formation		Upper Jurassic		Hekkingen Formation	
Seismic database (2D/3D):	3D					
Probability of discovery:						
Technical (oil+gas case)	8 %		Prob for oil/gas case			
Probability (fraction):	Reservoir (P1)	Trap (P2)	Charge (P3)	Retention (P4)		
	0.5	0.7	0.6	0.4		
Parametres:	Low	Base	High			
Depth to top of prospect (m)	1600	1600	1600			
Area of closure (km ²)	0.4	4	10			
Reservoir thickness (m)	18	30	42			
HC column in prospect (m)	7	11	21			
Gross rock vol. (10 ⁹ m ³)	0.60	0.90	1.20			
Net / Gross (fraction)	0.30	0.45	0.58			
Porosity (fraction)	0.14	0.17	0.20			
Water Saturation (fraction)	0.40	0.30	0.20			
Bg. (<1)						
Bo. (>1)	1.05	1.06	1.07			
GOR, free gas (Sm ³ /Sm ³)						
GOR, oil (Sm ³ /Sm ³)						
Recovery factor, main phase	0.25	0.35	0.45			
Recovery factor, ass. phase						
Temperature, top res (deg C) :	70	Pressure, top res (bar) :		241		

Table 7.3. Prospect Data Knurrungen.

Block	Prospect name		Discovery/Prosp/Lead		Prosp ID (or New)	NPD approved?
7123/4 (part)	Knurrungen		Prospect		<i>NPD will insert data</i>	<i>NPD will insert data</i>
Play (name / new)	Structural element		Company/ reported by / Ref. doc.		Year	
<i>NPD will insert data</i>	Hammerfest		OMV (Norge) AS		2013	
Oil/Gas case	Resources IN PLACE					
Oil	Main phase			Ass. phase		
	Low	Base	High	Low	Base	High
Oil 10 ⁶ Sm ³	0.7	26	68			
Gas 10 ⁹ Sm ³						
	Resources RECOVERABLE					
	Main phase			Ass. phase		
	Low	Base	High	Low	Base	High
Oil 10 ⁶ Sm ³	0.2	9	24			
Gas 10 ⁹ Sm ³						
	Which fractiles are used as:		Low:	P90	High:	P10
Type of trap	Water depth (m)		Reservoir Chrono (from - to)		Reservoir Litho (from - to)	
Stratigraphic	335-395		Lower Cretaceous		Knurr Formation	
SourceRock, Chrono	SourceRock, Litho		Seal, Chrono		Seal, Litho	
Upper Jurassic	Hekkingen Formation		Cretaceous		Kolje Formation	
Seismic database (2D/3D):	3D					
Probability of discovery:						
Technical (oil+gas case)	4 %		Prob for oil/gas case			
Probability (fraction):	Reservoir (P1)	Trap (P2)	Charge (P3)	Retention (P4)		
	0.6	0.9	0.4	0.2		
Parametres:	Low	Base	High			
Depth to top of prospect (m)	1600	1600	1600			
Area of closure (km ²)	0.6	7	22			
Reservoir thickness (m)	33	88.5	131			
HC column in prospect (m)	9	26	47			
Gross rock vol. (10 ⁹ m ³)	5.30	5.90	6.50			
Net / Gross (fraction)	0.16	0.29	0.43			
Porosity (fraction)	0.15	0.17	0.20			
Water Saturation (fraction)	0.40	0.30	0.20			
Bg. (<1)						
Bo. (>1)	1.05	1.06	1.07			
GOR, free gas (Sm ³ /Sm ³)						
GOR, oil (Sm ³ /Sm ³)	90.00	110.00	130.00			
Recovery factor, main phase	0.25	0.35	0.45			
Recovery factor, ass. phase						
Temperature, top res (deg C) :	70	Pressure, top res (bar) :		241		

Table 7.4. Prospect Data Knurre Upper Fan.

Block	Prospect name			Discovery/Prosp/Lead	Prosp ID (or New)	NPD approved?
7123/4 (part)	Knurre Upper fan			Prospect	<i>NPD will insert data</i>	<i>NPD will insert data</i>
Play (name / new)	Structural element			Company/ reported by / Ref. doc.		Year
<i>NPD will insert data</i>	Hammerfest			OMV (Norge) AS		2013
Oil/Gas case	Resources IN PLACE					
Oil	Main phase			Ass. phase		
	Low	Base	High	Low	Base	High
Oil 10 ⁶ Sm ³	0.4	20	35			
Gas 10 ⁹ Sm ³						
	Resources RECOVERABLE					
	Main phase			Ass. phase		
	Low	Base	High	Low	Base	High
Oil 10 ⁶ Sm ³	0.1	7	12			
Gas 10 ⁹ Sm ³						
	Which fractiles are used as:		Low:	P90	High:	P10
Type of trap	Water depth (m)		Reservoir Chrono (from - to)		Reservoir Litho (from - to)	
Stratigraphic	335-395		Lower Cretaceous		Knurr Formation	
SourceRock, Chrono	SourceRock, Litho		Seal, Chrono		Seal, Litho	
Upper Jurassic	Hekkingen Formation		Cretaceous		Kolje Formation	
Seismic database (2D/3D):		3D				
Probability of discovery:						
Technical (oil+gas case)		3 %		Prob for oil/gas case		
Probability (fraction):		Reservoir (P1)	Trap (P2)	Charge (P3)	Retention (P4)	
		0.4	0.9	0.4	0.2	
Parametres:		Low	Base	High		
Depth to top of prospect (m)		1650	1650	1650		
Area of closure (km ²)		0.4	13	40		
Reservoir thickness (m)		41	51	62		
HC column in prospect (m)		6	11	16		
Gross rock vol. (10 ⁹ m ³)		9.98	11.00	12.20		
Net / Gross (fraction)		0.13	0.21	0.30		
Porosity (fraction)		0.15	0.17	0.20		
Water Saturation (fraction)		0.40	0.30	0.20		
Bg. (<1)						
Bo. (>1)		1.05	1.06	1.07		
GOR, free gas (Sm ³ /Sm ³)						
GOR, oil (Sm ³ /Sm ³)		90.00	110.00	130.00		
Recovery factor, main phase		0.25	0.35	0.45		
Recovery factor, ass. phase						
Temperature, top res (deg C) :		70	Pressure, top res (bar) :		241	

Table 7.5. Prospect Data Knurre Lower Fan.

Block	Prospect name			Discovery/Prosp/Lead		Prosp ID (or New)	NPD approved?
7123/4 (part)	Knurre Lower fan			Prospect		<i>NPD will insert data</i>	<i>NPD will insert data</i>
Play (name / new)	Structural element			Company/ reported by / Ref. doc.		Year	
<i>NPD will insert data</i>	Hammerfest			OMV (Norge) AS		2013	
Oil/Gas case	Resources IN PLACE						
Oil	Main phase			Ass. phase			
	Low	Base	High	Low	Base	High	
Oil 10 ⁶ Sm ³	2	25	63				
Gas 10 ⁹ Sm ³							
	Resources RECOVERABLE						
	Main phase			Ass. phase			
	Low	Base	High	Low	Base	High	
Oil 10 ⁶ Sm ³	1	9	23				
Gas 10 ⁹ Sm ³							
	Which fractiles are used as:		Low:	P90	High:	P10	
Type of trap	Water depth (m)		Reservoir Chrono (from - to)		Reservoir Litho (from - to)		
Stratigraphic	335-395		Lower Cretaceous		Knurr Formation		
SourceRock, Chrono	SourceRock, Litho		Seal, Chrono		Seal, Litho		
Upper Jurassic	Hekkingen Formation		Cretaceous		Kolje Formation		
Seismic database (2D/3D):	3D						
Probability of discovery:							
Technical (oil+gas case)	3 %			Prob for oil/gas case			
Probability (fraction):	Reservoir (P1)	Trap (P2)	Charge (P3)	Retention (P4)			
	0.4	0.9	0.4	0.2			
Parametres:	Low	Base	High				
Depth to top of prospect (m)	2200	2200	2200				
Area of closure (km ²)	6	15	24				
Reservoir thickness (m)	15	59	130				
HC column in prospect (m)	3	13	27				
Gross rock vol. (10 ⁹ m ³)	3.70	4.00	4.50				
Net / Gross (fraction)	0.13	0.21	0.30				
Porosity (fraction)	0.13	0.15	0.18				
Water Saturation (fraction)	0.40	0.30	0.20				
Bg. (<1)							
Bo. (>1)	1.05	1.06	1.07				
GOR, free gas (Sm ³ /Sm ³)							
GOR, oil (Sm ³ /Sm ³)	90.00	110.00	130.00				
Recovery factor, main phase	0.25	0.35	0.45				
Recovery factor, ass. phase							
Temperature, top res (deg C) :	70	Pressure, top res (bar) :				241	