PL072D/E/F relinquishment report

LICENSE RELINQUISHMENT REPORT PL072D/E/F

This report outlines the key license history, database, prospects and the technical evaluation of the production licenses PL072D, PL072E and PL072F.

1 KEY LICENSE HISTORY

Production licenses PL072D/E/F are located within block 16/7 on the southeastern flank of the Southern Viking Graben to the East of the Sleipner Øst field (Figure 1). Statoil Petroleum AS (Statoil) is the Operator in all the licenses with a 40% share, whereas ExxonMobil Exploration and Production Norway AS and Origo Exploration Norway AS hold 30%, respectively.

The PL072D and PL072E licenses have been awarded through APA license rounds (Table 1), whereas the PL072F was obtained through a carve-out of PL072B. Work obligations for the PL072D license consisted in a firm well commitment to be executed within 7th of February 2017. The 16/7-11 well, which was drilled during August and September 2015, fulfilled this commitment (Table 1).

The following Management and Exploration committee meetings have been held:

- EC meeting 26.02.2014 Knappen well location and data acquisition strategy
- MC/EC meeting 31.03.2014 Start-up meeting for awarded PL072D license
- MC/EC meeting 01.12.2014 Status Knappen well, APA 2014, budget and work program, way forward
- MC/EC meeting 06.08.2015 Knappen pre-well meeting
- EC meeting 25.09.2015 Knappen post-well meeting
- MC/EC meeting 23.06.2016 Final license meeting

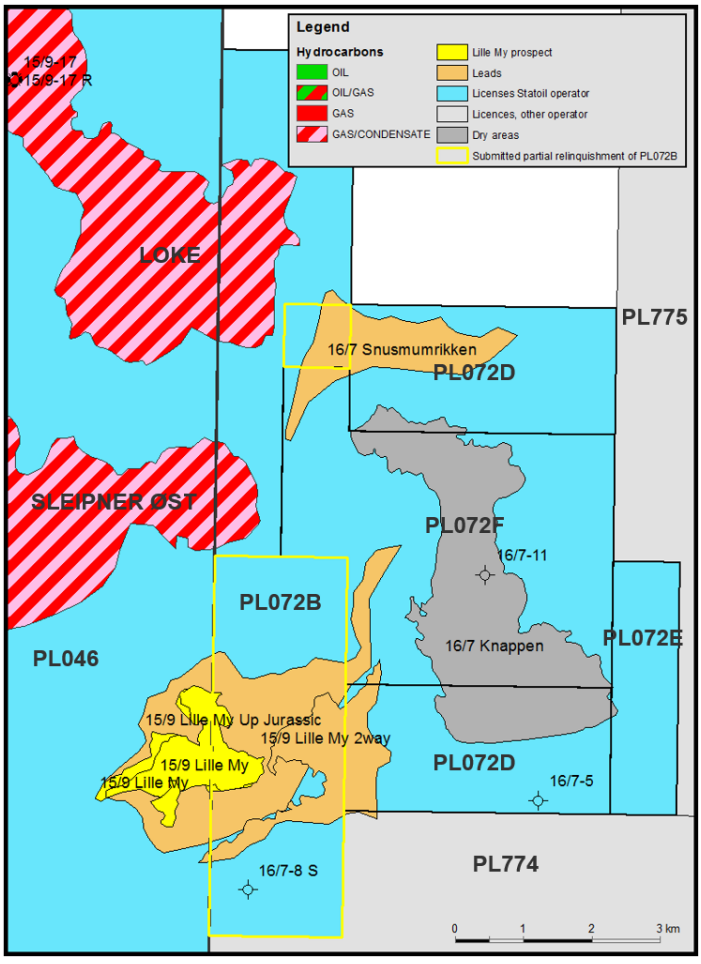


Figure 1. License overview map.

License	Award process	Award date	Expiry date	Work obligation
PL072D	2013 APA	07.02.2014	07.02.2019	Drilling of exploration well
PL072E	2014 APA	06.02.2015	07.02.2019	None
PL072F	Carve-out from PL072B	13.08.2015	07.02.2019	None

Table 1. License details.

The rationale for the proposed relinquishment is the combination of the dry 16/7-11 well targeting the Triassic Skagerrak Formation of the Knappen prospect and the lack of any additional upside potential and commercial prospectivity within the licensed area. The remaining prospectively identified to lie partly within the licensed area includes the leads 16/7 Snusmumrikken, 15/9 Lille My Upper Jurassic and 15/9 Lille My 2 way (Figure 1).

2 DATABASE

The PL072D/E/F seismic database and surveys used for the license work and evaluation of the Knappen prospect are shown in Figure 2.

The key seismic survey has been the semi-regional 3D survey ST09M13 (PSDM) from 2010. This survey has been the result of reprocessing a merge of the 6 surveys ST9305, ES9401, ST9407, SVGTQ, ST0804 and ST0403. The ST09M13 does show slightly improved signal to noise ratio and better reflector continuity at relevant depths compared to previous seismic surveys that cover the area. Overall, the PSDM reprocessing enhanced the quality to the east, where the Knappen prospect is located, see Figure 2. In addition to this, the time migrated ST98M3 from 1998 and ST09M02 from 2009 have been used during earlier evaluation work and as supplementary data sets to the ST09M13. Their quality is fair.

The PL072D/E/F well database used for the license work and evaluation of the Knappen prospect is shown in Figure 2 and Table 2. The main offset well for the Knappen prospect prior to drilling was the 16/7-5 well drilled in 1984 by Esso Exploration and Production (Figure 2 and Appendix A). The 16/7-5 well was used as main offset well because it had been drilled within the same Triassic depocenter as the Knappen prospect.

Well	Year	Drilling operator	Present license	HC (age)	Well tie	Age at TD
15/9-9	1981	Statoil Petroleum AS	PL046	Gas (Paleocene)	Good	Early Permian
15/9-11	1981	Statoil Petroleum AS	PL046	Gas (Paleocene)	Good	Triassic
15/9-13	1982	Statoil Petroleum AS	PL046	Gas (Middle Jurassic)	Good	Permian
15/9-15	1982	Statoil Petroleum AS	PL046	Gas (Triassic)	Good	Triassic
15/9-A-14	2007	Statoil Petroleum AS	PL072B	Depleted (Mid Jurassic)	Moderate	Triassic
16/7-2	1982	Esso Exploration and Production	PL072B	Gas (Paleocene)	Good	Permian
16/7-3	1982	Esso Exploration and Production	PL409	Dry (Middle Jurassic)	Good	Permian
16/7-5	1984	Esso Exploration and Production	Open	Possible gas (Triassic)	Good	Triassic
16/7-8S	2001	Esso Exploration and Production	PL072B	Dry (Middle Jurassic)	Moderate	Triassic

Table 2. Common well database for PL072D/E/F.

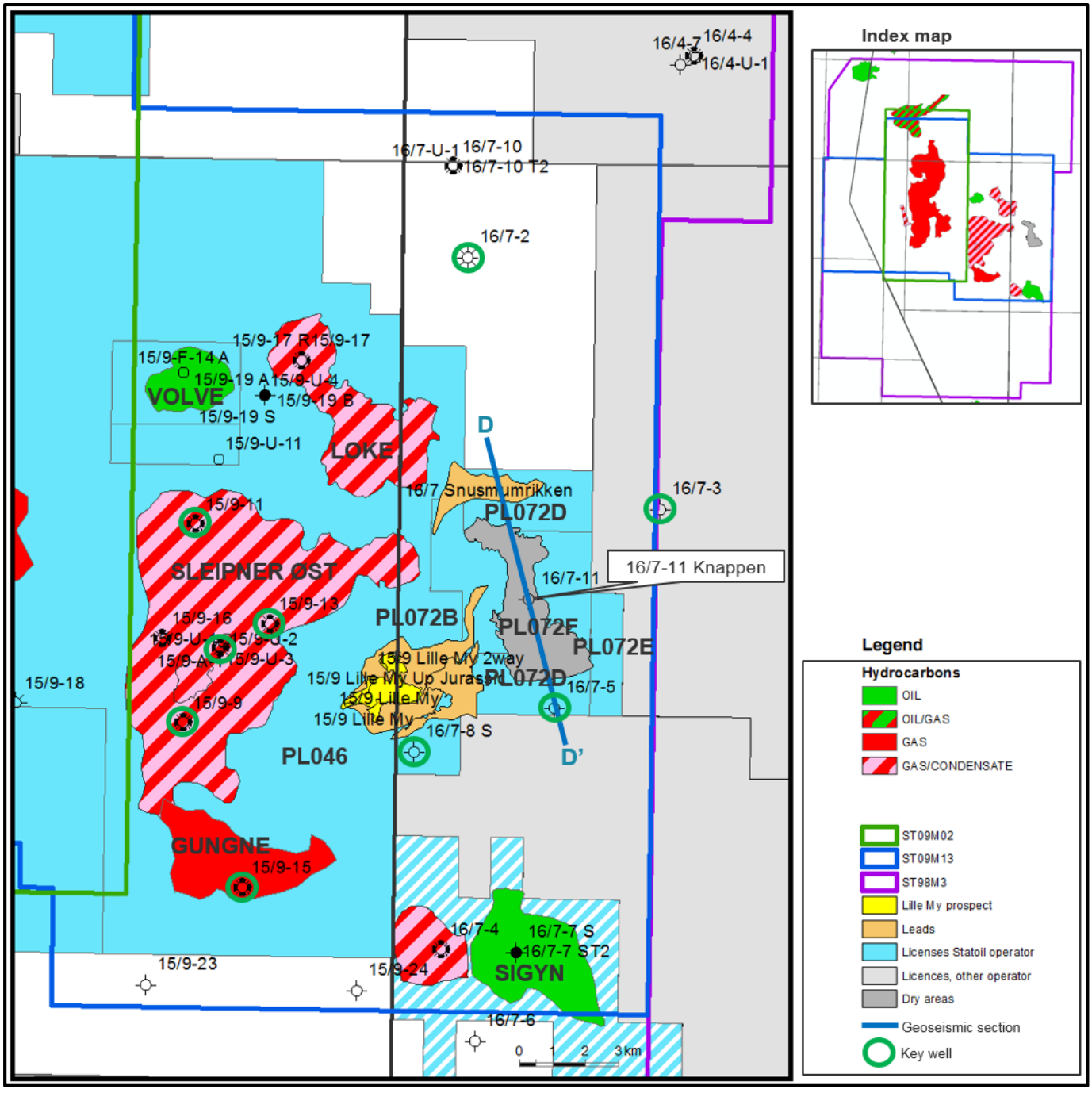


Figure 2. License overview map showing licenses, discoveries, prospects, seismic surveys, key wells and position of geo-seismic section shown in Appendix B.

3 REVIEW OF GEOLOGICAL FRAMEWORK

The regional geological understanding has not changed noticeably since the APA license round applications in 2009, 2013 and 2014. Hence, reference is made to these applications, which all are named "Part(s) of Block 16/7", for documentation on the geological framework.

The model for Knappen prospect did however change through time from a Middle Jurassic Hugin Formation prospect to a Triassic Skagerrak Formation prospect. This change was the result of mapping on an improved seismic survey and updated biostratigraphy of selected intervals in the key offset wells (Appendix A). The new model, and overall control on the geological framework, was confirmed by the 16/7-11 well as the well results came in close to the pre-drill expectations.

The 16/7-11 well encountered the Triassic Skagerrak Formation at 2528 meters MSL, 13 meters deeper than prognosis, and drilled a total of 97 meters into this formation before total depth was set at 2625 meters MSL. The well was confirmed dry as no indications of hydrocarbon were detected on LWD logs, gas readings, or cuttings (no shows). In accordance with the activity program, data acquisition was limited to what was needed to confirm the dry case. As a result, only logging while drilling data is available as no wireline runs were completed.

After completion of the 16/7-11 well a geochemistry and biostratigraphical study were undertaken. The studies are documented on the PL072D/E/F L2S joint venture. In summary, the post-well geochemistry study and results from analyses confirm that:

- no hydrocarbons or shows are identified in the 16/7-11 well at reservoir level
- the well did not penetrate any interval within the Triassic that could be considered to have source potential.

The post-well biostratigraphical study and results from analyses suggest that:

- an unconformable boundary exists between the Rødby Formation and Skagerrak Formation
- there are no signs of Hugin Formation or Draupne Formation assemblages.

Post-well, lack of migration is assumed to be the reason for the dry well.

4 PROSPECT UPDATE

The PL072D/E/F prospect inventory has been updated after drilling the dry 16/7-11 well. It was concluded that the dry well results did not change the risks of the nearby leads. The outlines of the leads however changed as new seismic data was available. All three leads, which lie partly in the PL072D/E/F licenses, are without any commercial potential as they carry high risks and low volumes (Figure 1 and Table 3).

The Lille My Hugin 2 way lead is defined as a downfaulted trap depending on fault seal towards the Knappen Triassic pod and the Triassic pod including the 15/7-8S well. The reservoir is the Hugin Formation of Middle Jurassic age. The prospect has a low probability for migration. Due to high probability of juxtaposition of the Hugin Formation against the Skagerrak Formation in the adjacent Triassic pods the seal risk is high. The probability of finding Hugin Formation reservoir sands is also considered low. All factors result in a high prospect risk and minor volumes.

The Lille My Intra Draupne lead is a down faulted trap depending on fault seal towards the Knappen Triassic pod and the Triassic pod including the 15/7-8S well. The reservoir is an Intra Draupne Formation sandstone. These sandstones have not been penetrated in nearby wells. Their presence in the Lille My graben is proposed as the new mapping highlighted the presence of an increased accommodation space which is assumed to host Upper Jurassic sediments. Reservoir presence, migration and fault seal are risked high resulting in a low Pg. The volumes are also small.

The Snusmumrikken lead is a downfaulted trap against the northern boundary fault of the Knappen pod. The reservoir is an Intra Draupne Formation sandstone. Migration and reservoir presence carry the highest risk. Overall the lead has a high risk and very low volumes.

Undiscovered	Prospect segments	In-place res. (GSm^3) main phase 100%, Total Structure			Recoverable res. (MSm^3oe) 100%, Total Structure			Pg %	Within licenses %
		P90	Mean	P10	P90	Mean	P10		
Pre drill segment	Lille My Hugin 2 way	1,42	2,4	3,65	1,57	2,67	4,08	7	36
Pre drill segment	Lille My Intra Draupne	0,26	0,79	1,67	0,31	0,94	1,99	13	8
Pre drill segment	Snusmumrikken	0,07	0,3	0,66	0,06	0,27	0,6	16	77

Prospect segments	P-Play			P-Prospect / Segment							Discovery	
				Reservoir		Source			Trap			
	Reserv	Source	Seal	pre-sence	produc-ability	pre-sence	migra-tion	hc-phase	geo-metry	seal	Pg	Pg (DFI)
Lille My Hugin 2 way	1,0	1,0	1,0	0,60	1,00	1,00	0,30	0,90	0,90	0,50	7,3	NA
Lille My Intra Draupne	1,0	1,0	1,0	0,55	1,00	1,00	0,40	1,00	0,95	0,60	12,5	NA
Snusmumrikken	1,0	1,0	1,0	0,60	1,00	1,00	0,40	1,00	0,95	0,70	16,0	NA

All values in %-factor

Table 3. PL072D/E/F license prospect volumes and risk overview.

5 TECHNICAL EVALUATIONS

No new technical economical evaluations have been performed after drilling of the 16/7-11 well. The assumed development solution for the Knappen prospect prior to drilling was based on a one 4-slot subsea template located on the southern part of the Knappen prospect tied back via the Sigyn template to the Sleipner A platform (Figure 3). Depletion production from a total of 3 deviated gas producers were considered for the base case with an expected start-up in 2021.

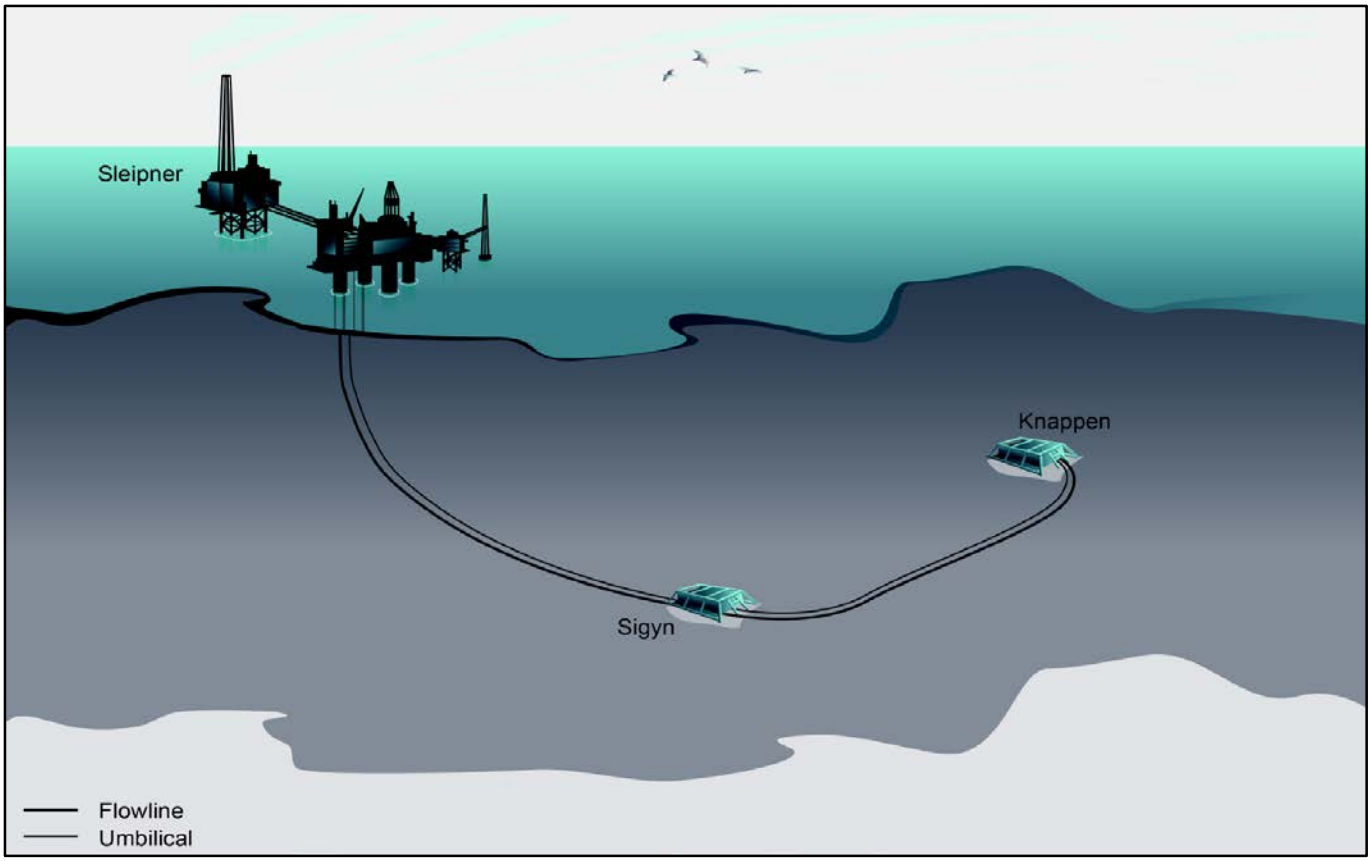
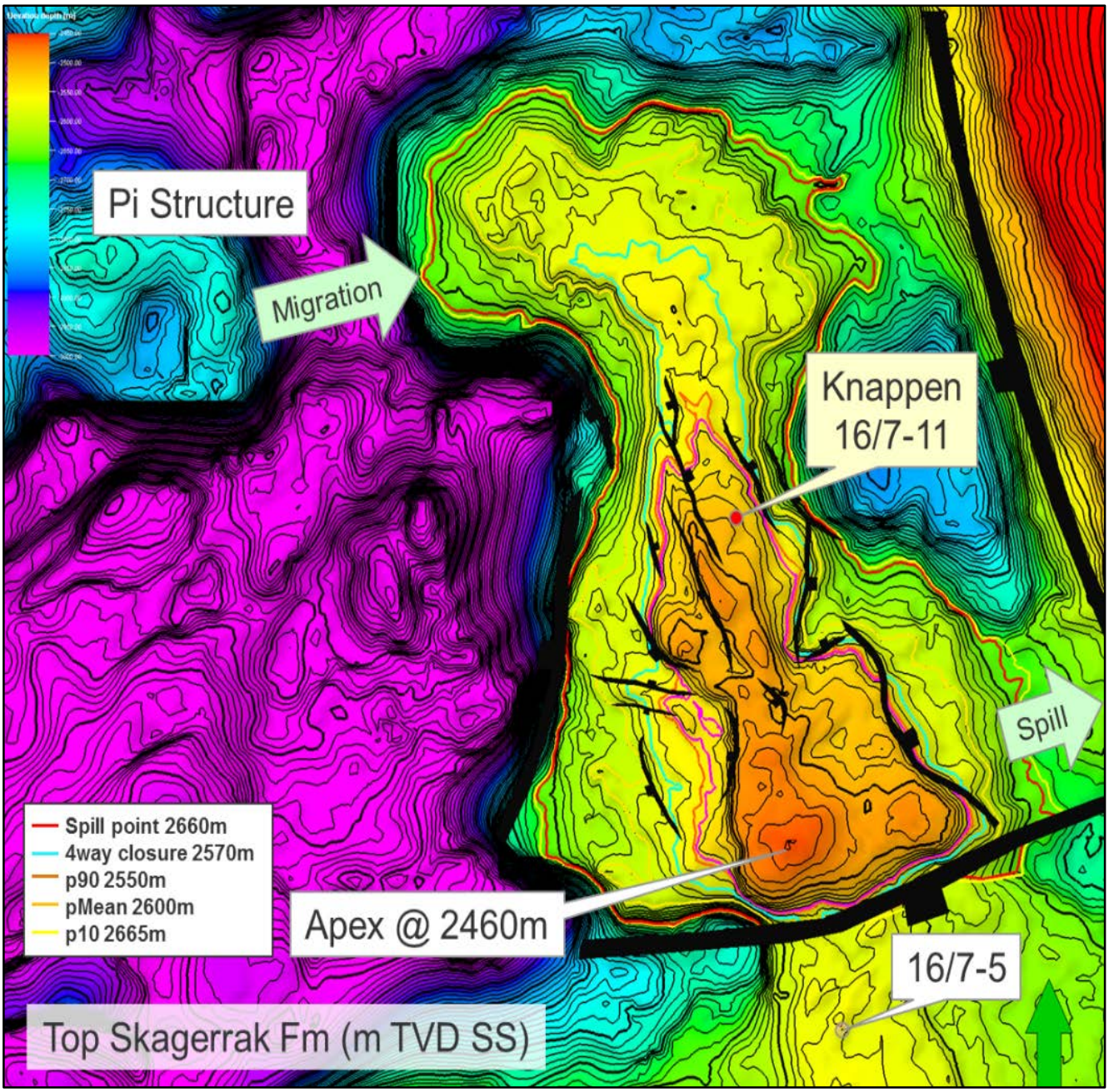


Figure 3. Knappen pre-drill development concept.

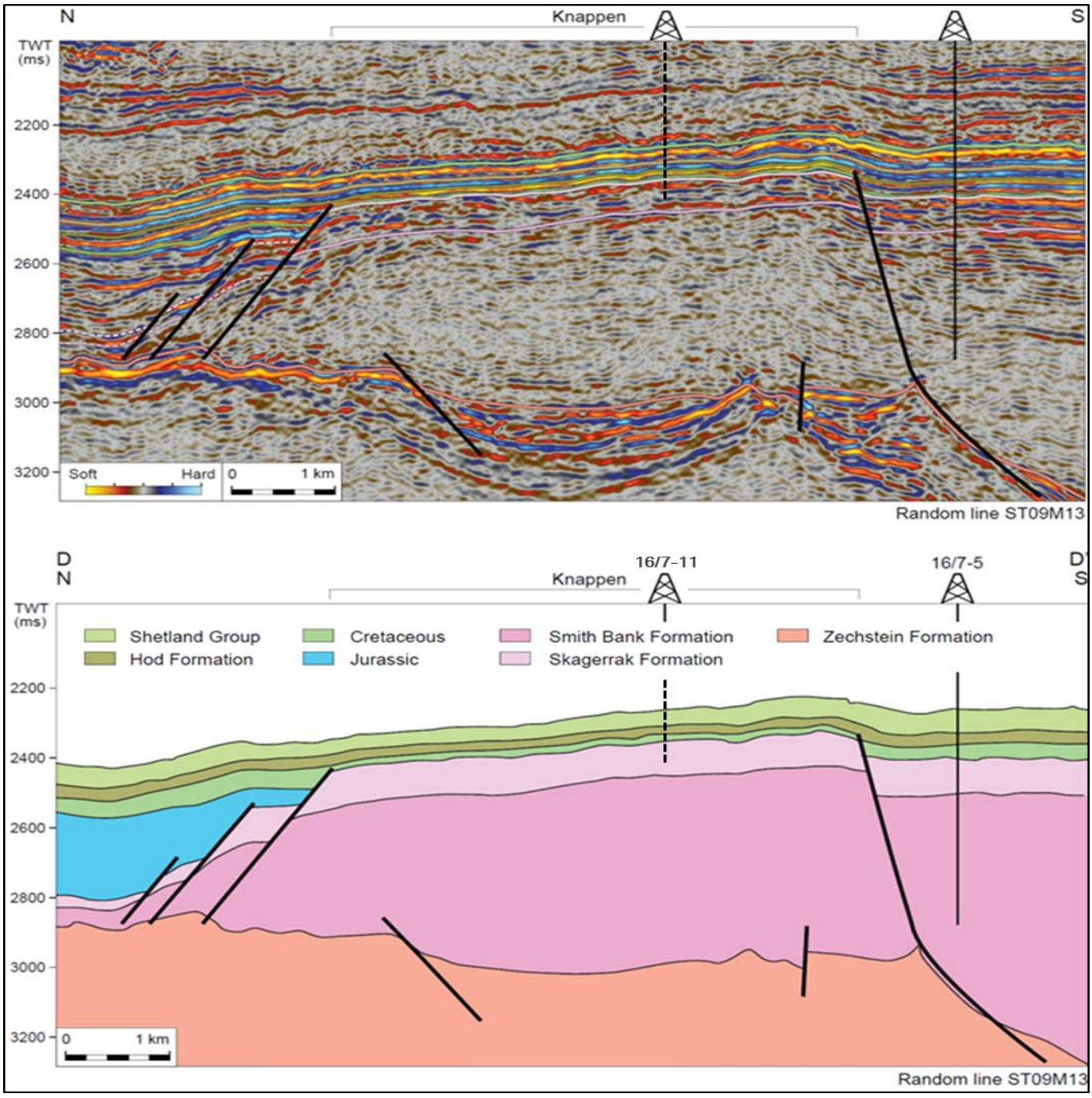
6 CONCLUSIONS

The PL072D/E/F work obligations have been fulfilled. Further, relevant geological and geophysical license and post well studies and reporting have been performed. Based on the overall results of the above presented, the license partnership has made the decision to relinquish he PL072D/E/F licenses.

7 APPENDIX



Appendix A. Top Skagerrak depth structure map for the Knappen prospect based on the ST09M13 PSDM.



Appendix B. Geo-seismic section through the Knappen prospect on the ST09M13 PSDM. Approximate location of section is shown in Figure 2.