Olje- og energidepartementet
Postboks 8148 Dep
0033 Oslo

Xx måned, 2015

Lysaker,

Tilbakeleveringsrapport PL495 and PL495B

Vi viser til brev av 03 Oktober 2014 (deres ref 14/1353) vedrørende bortfall av utvinningstillatelse 495 og 495B.

Vennligst finn vedlagt en oppsummerende tilbakeleveringsrapport for PL495 og PL495B.

Med vennlig hilsen
[redacted]

Lundin Norway AS

PL495 and PL495B Relinquishment report

August 2015

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1. Summary and conclusion

The technical G&G evaluation of PL495 and PL495B resulted in a multitude of leads at upper Cretaceous Chalk, upper Jurassic Ula Fm, Triassic Skagerrak Fm, Permian Rotliegendes levels. The exploration well 7/4-3 on the Carlsberg structure tested 2 four-way closures at Chalk and Triassic levels in 2013. The well proved the Chalk reservoir, but this was dry and the expected Triassic reservoir was not found. The analysis of the well results and the re-evaluation of the remaining prospectivity in the license has not given technical/commercial foundation for drilling any of the remaining mapped prospects or leads within the license area. The main risk in the area before drilling of well 7/4-3 was considered to be oil migration, and this is still the main risk. Well 7/4-3 also proved that prediction of reservoir presence of the Skagerrak Fm sands is difficult. The decision to relinquish the license was made by the partnership in a letter to OED on the 21th of July 2014. The licenses PL495 and PL495B were accepted relinquished in a letter from OED (Ref. 14/1353) on the 3 rd of October 2014.

2. Introduction

PL495 comprised 1165.010 km^2 of blocks 7/2, 7/4, 7/5, 7/8. The PL495B comprised 99.979 km^2 of block 7/1 The blocks are situated on the Jæren High in the North Sea located just north of the currently producing Brynhild Field operated by Lundin Norway AS. (Figure 1).

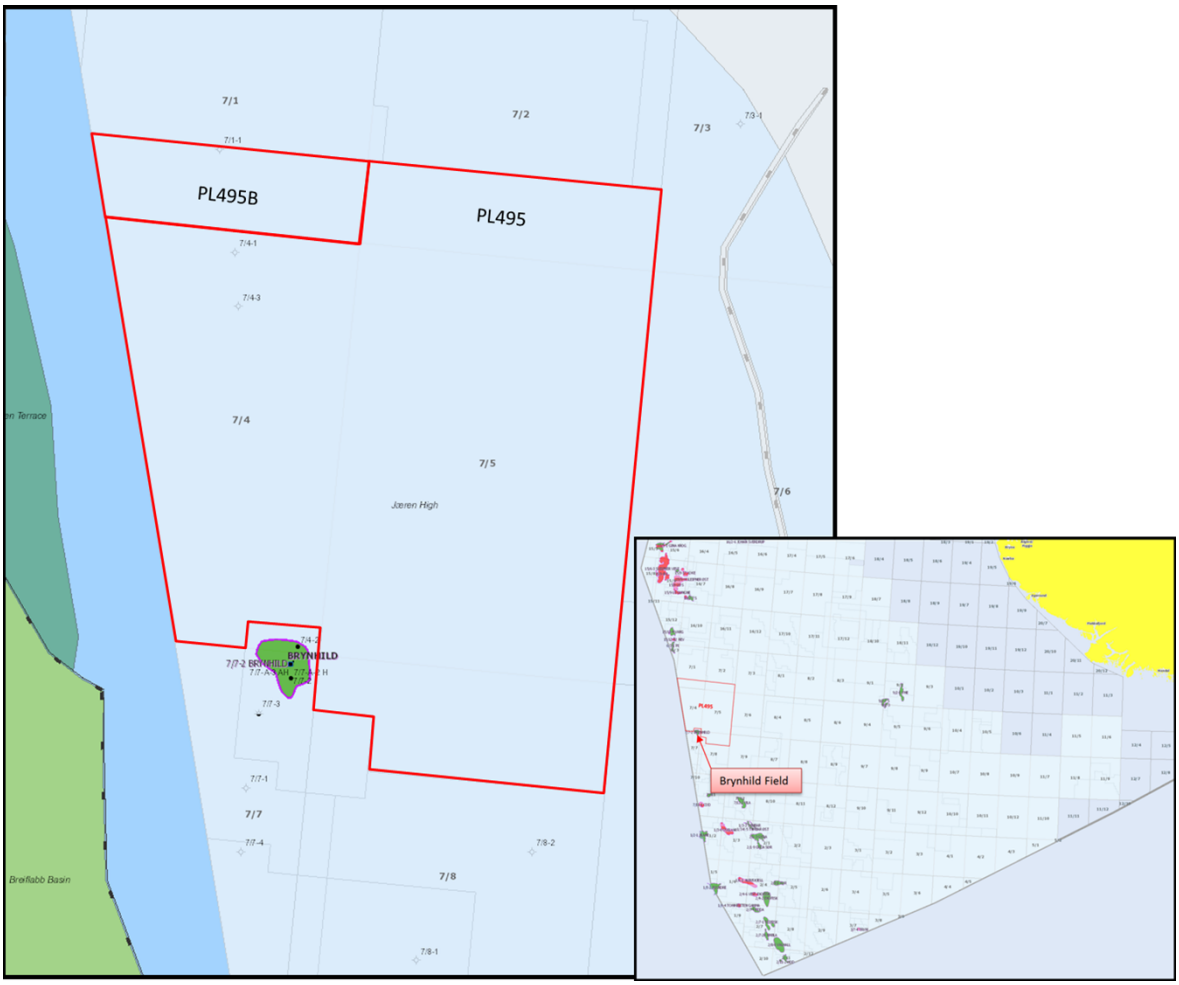


Figure 1. Location of PL495 and PL495B in the North Sea.

3. License award and period extension

PL495 was awarded as part of APA 2008 on 23rd January 2009, with a 6 years initial license period to Lundin Norway AS (60% and operator) and Spring Energy (Now Tullow Oil Norge AS, 40% and partner). PL495B was awarded as part of APA 2011 on 3rd February 2012 to the same partners as PL495 and with the same license conditions. During autumn 2010 the license was granted a 6 month extension of the drilling decision until 23rd july 2011. After an extensive period of seismic reprocessing and G&G evaluations a drill decision was made by the licensees on 18th April 2011 to drill well 7/4-3 on the Carlsberg Prospect. Well 7/4-3 was drilled during the second quarter of 2013. During Spring 2013 the license applied for a 1 years extension of the BOV until 23rd july 2014 and this was granted by OED on 26th June 2013. The decision to relinquish the license was made by the partnership in a letter to OED on the 21th of July 2014 and the relinquishment application granted in a letter from OED (Ref. 14/1353) on the 3 rd of October 2014.

The original APA 2008 application contained several leads of Cretaceous, Jurassic, Triassic and Permian ages, (Figure 2).

Licensee valid from date	Licensee valid to date	Company	Interest (%)
13.02.2013	23.07.2014	Lundin Norway AS	60
		Tullow Oil Norge AS	40
23.01.2009	13.02.2013	Lundin Norway AS	60
		Spring Energy Norway AS	40

Table 1a. Historical overview of PL495 licensees.

Licensee valid from date	Licensee valid to date	Company	Interest (%)
13.02.2013	23.07.2014	Lundin Norway AS	60
		Tullow Oil Norge AS	40
03.02.2012	13.02.2013	Lundin Norway AS	60
		Spring Energy Norway AS	40

Table 1b. Historical overview of PL495B licensees.

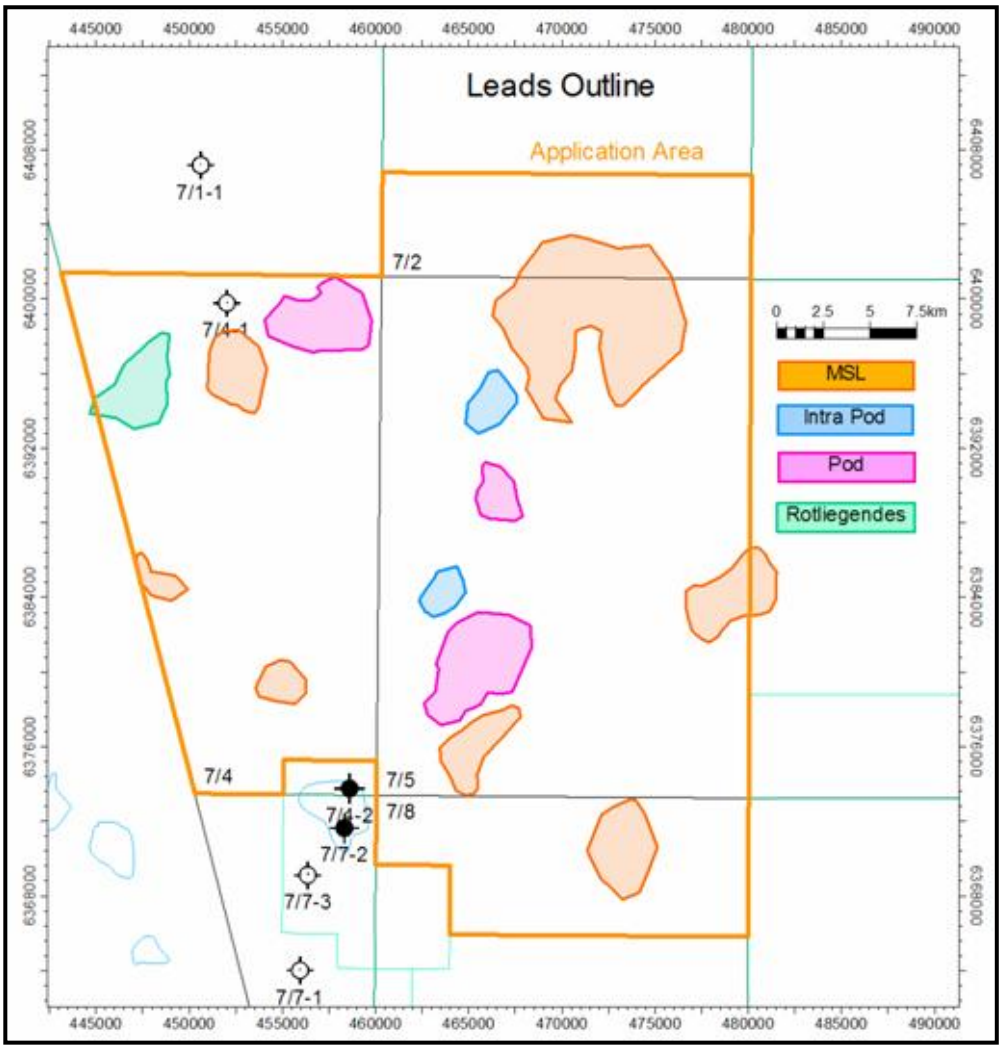


Figure 2. Outline of mapped Leads in the original APA 2008 application

MSL Leads outlines are combined Paleocene and Chalk 4-way closures

Intra Pod outlines are mapped Upper Jurassic (Ula Fm) leads

Pod outlines are mapped 4-way closures at BCU level, with (Triassic Skagerrak Fm) reservoirs

Rotliegendes outlines are mapped Permian (Rotliegendes Fm) 4-way closures

4. Completed work and special studies

The work commitment was to acquire 3D seismic covering the license area. A drill-or-drop decision was to be made within 2 years and 90 days of award.

The seismic work commitment was fulfilled during 2008 by acquiring approximately 340 km^2 3D (seismic survey LN0802, Fig. 3.).

In addition to the work commitment special studies have been performed, including AVO analysis and seismic inversion, seismic frequency blending, fluid substitution/seismic modelling, basin modelling and geochemical analysis of samples from relevant offset wells.

PL 495 ble tildelt med en initiell periode på seks år hvorav den første 2 års fasen inneholdt en arbeidsforpliktelse om å reprosessere 3D seismikk samt å ta en borebeslutning innen 23 januar 2011. Arbeidsforpliktelsene ble utført ved å reprosessere 3D seismikk JHT2006R09, JHT2006LNR11 og NH0201LNR13

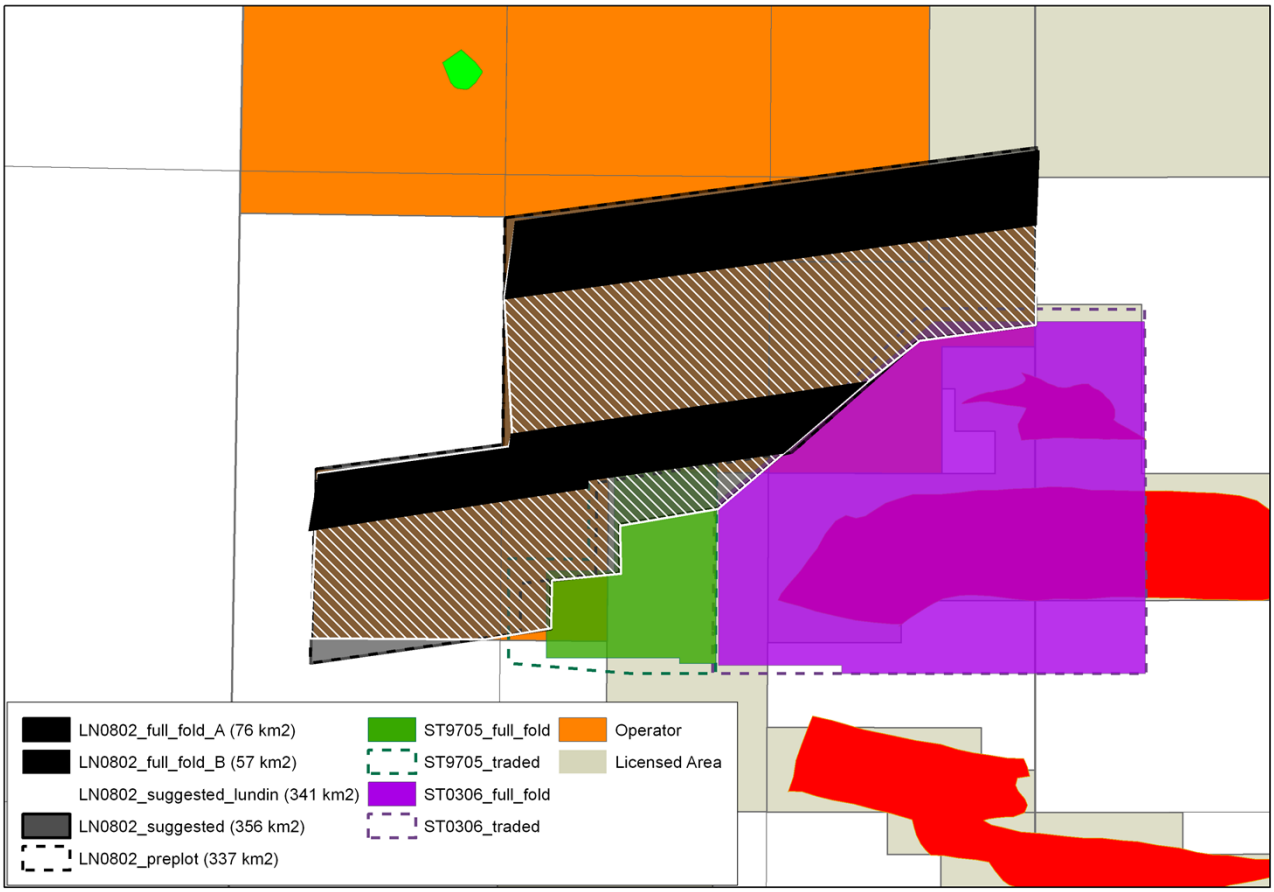
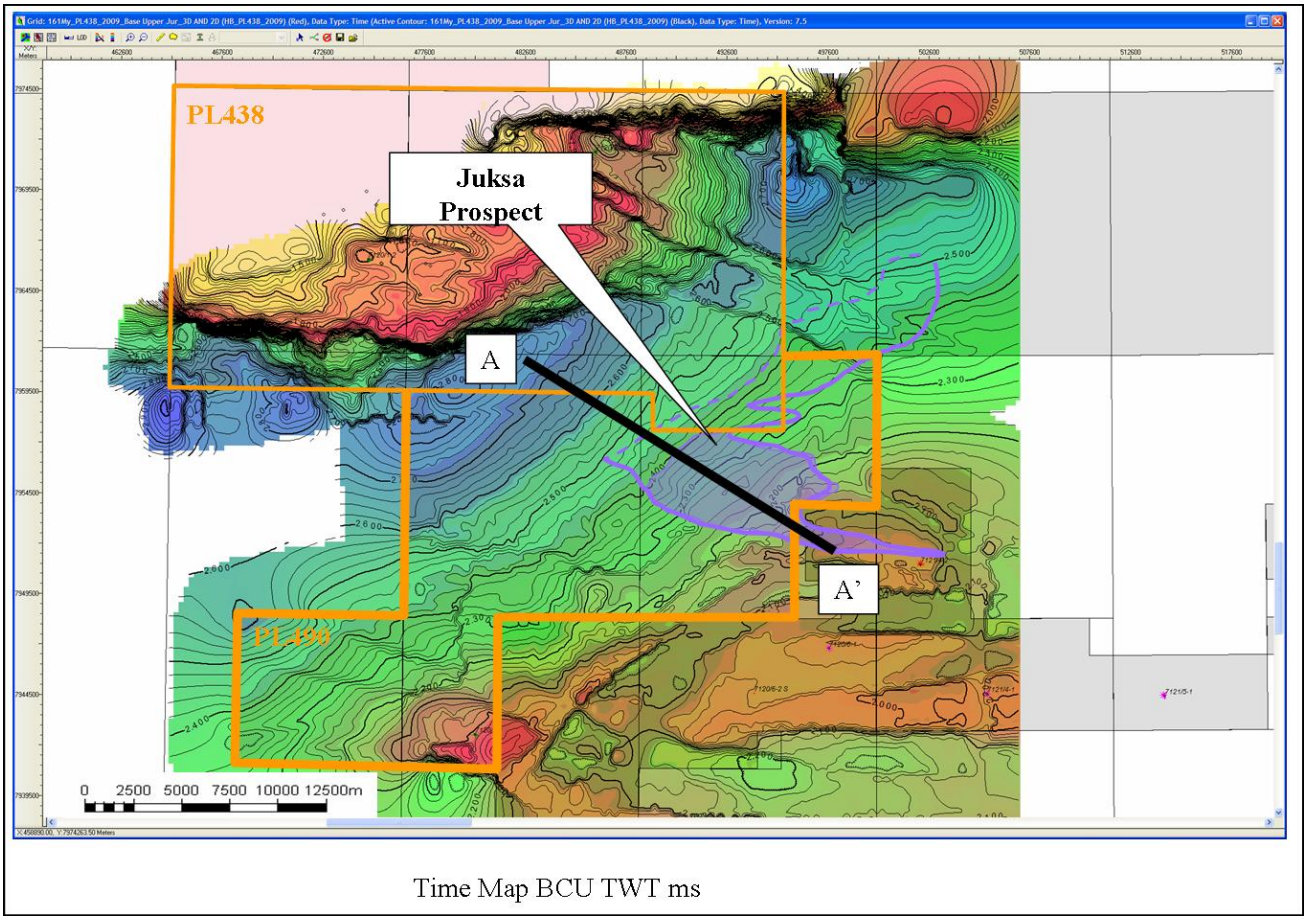


Fig. 3. Coverage of LN0802 3D seismic indicated in black.

5. Pre-drill prospectivity evaluation

The seismic interpretation (both regionally and locally), geochemical analysis, basin modeling as well as evaluation of prospectivity was carried out mainly during 2009-2010. The main targets were submarine clastic systems in the Lower Cretaceous Kolmule and Knurr Fms. visible as amplitude anomalies on seismic data. The prospects Juksa and Snurrevad were defined as stratigraphic traps and structural-stratigraphic combination traps. A Jurassic lead was defined in the Stø Fm. (Trål, structural 4-way trap). The Upper Jurassic organic rich Hekkingen Fm. was the primary source rock, with oil mature kitchens in the northern of the Hammerfest Basin delivering hydrocarbon charge to up-dip traps in the Jurassic and Lower Cretaceous formations. A lead called Kvitfisk was identified in the Paleocene section.

The Juksa and Snurrevad prospects appeared most promising; with P50 pre-drill volume estimates of around 65 MSm^3 and 100 MSm^3 of oil initially in place, respectively.



Time Map BCU TWT ms

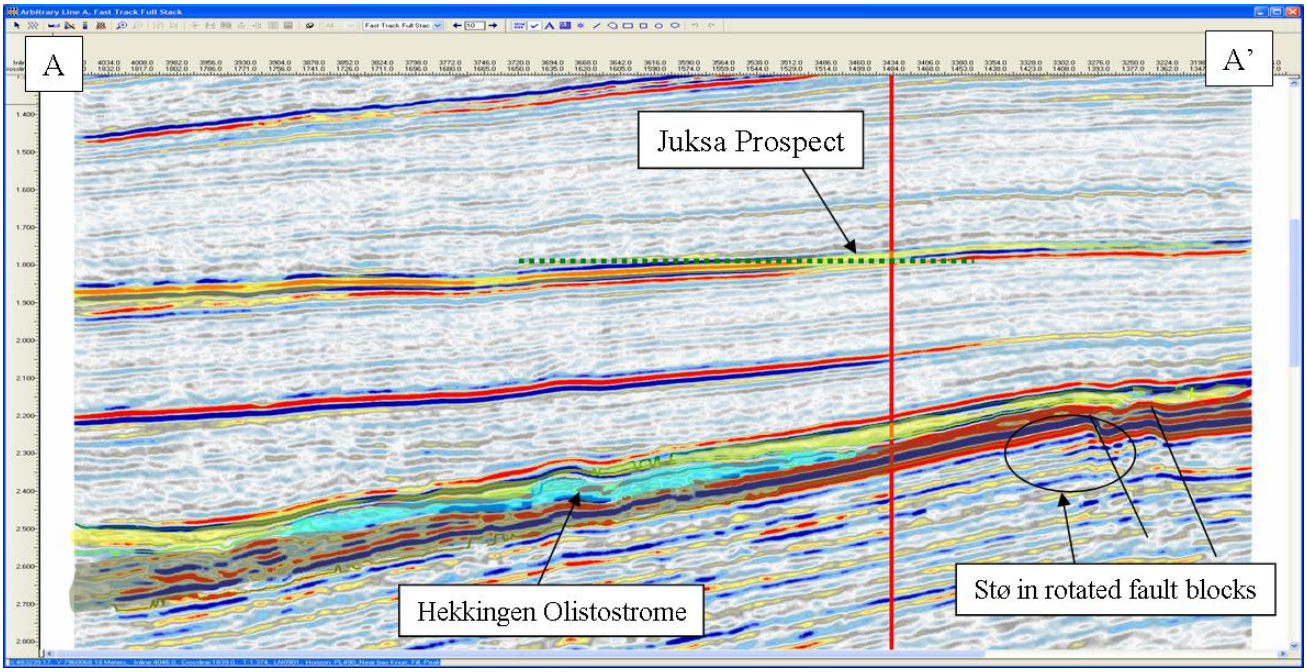
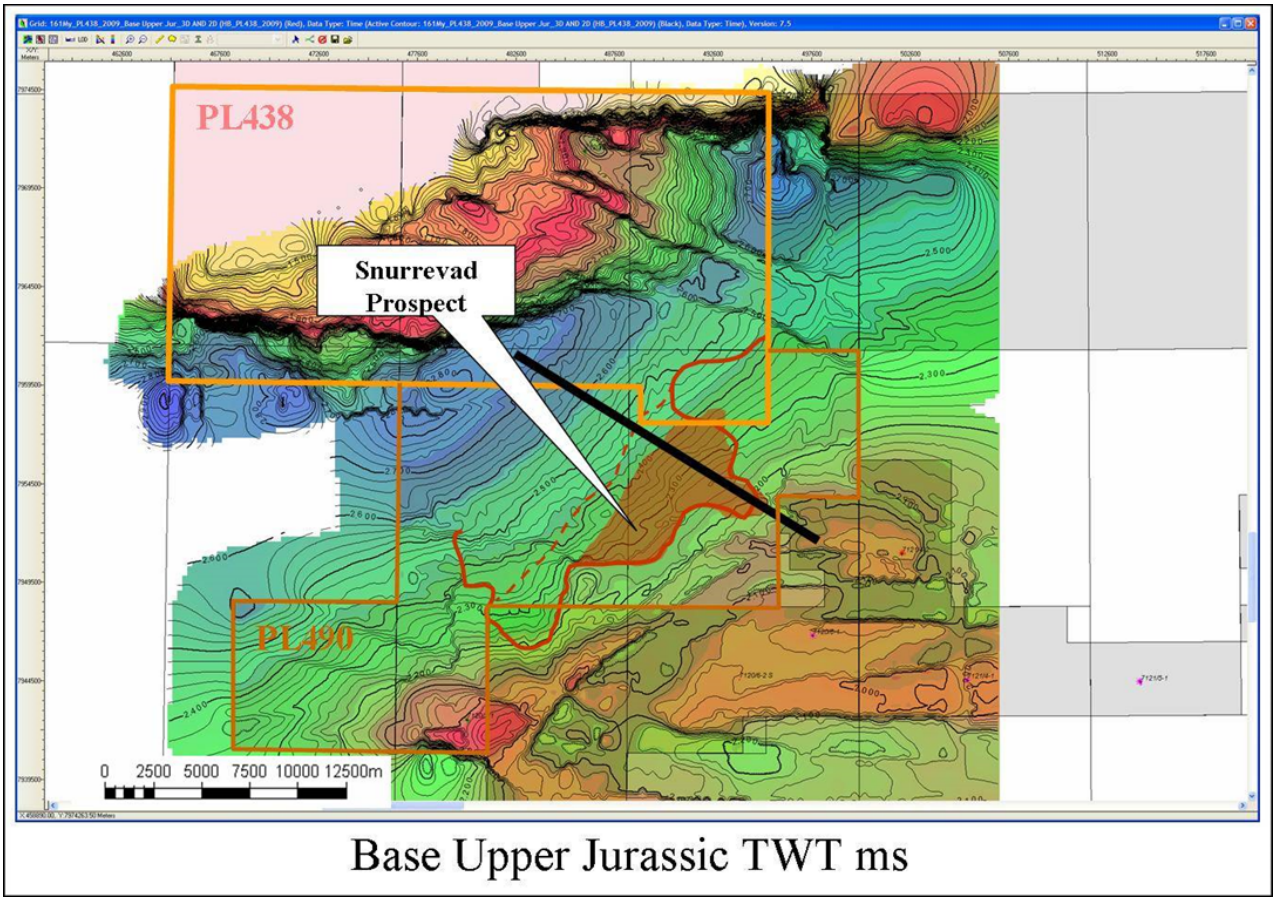


Fig. 4. Location of the Juksa prospect on a BCU time map. Also shows is location of seismic section A-A` crossing the Juksa prospect.



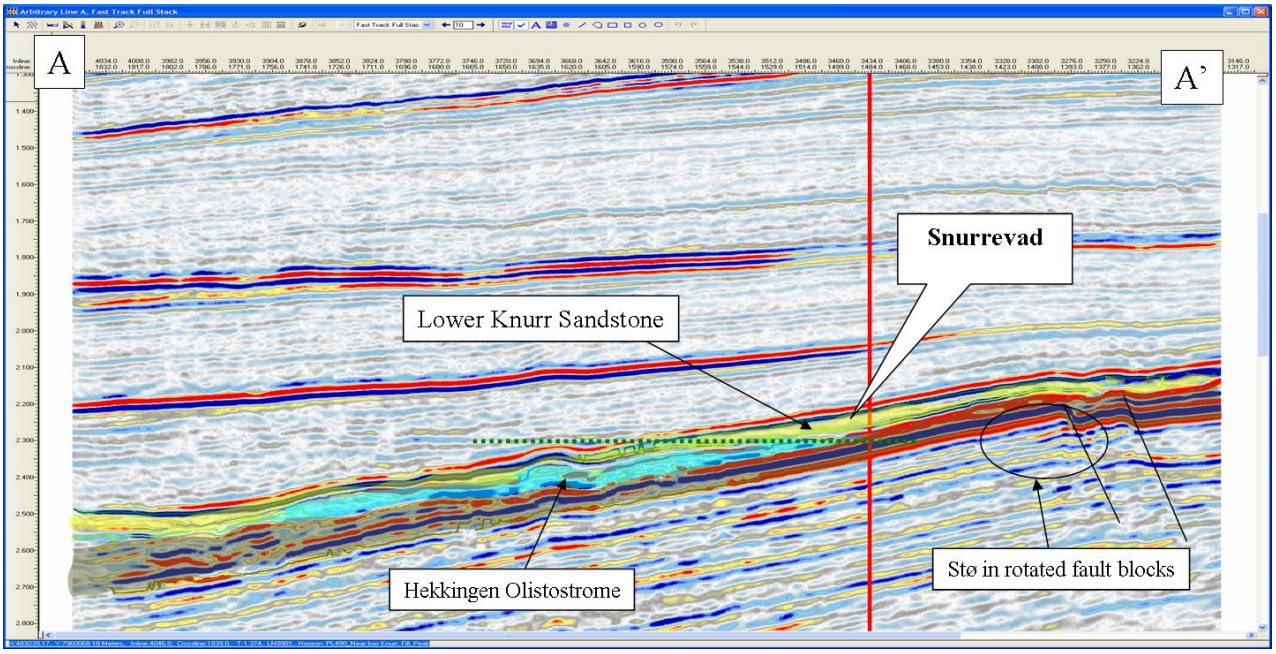


Fig. 5. Location of the Snurevad prospect on a Base Upper Jurassc time map. Also shows is location of seismic section A-A` crossing the Snurrevad prospect.

6. 7120/6-3 S results

The well was drilled at the following location:

X: 490226.96 m East	Y: 7953925.23 m North	UTM Zone 34N, CM 21° East
Lat: 71° 41' 02.43" N	Long: 20° 43' 16.97" E	ED-50
Line intersection: (LN11 IM07)	xline: 1356	Inline: 3490

The well was spudded 10.10.2012 and reached well TD of 3030 mMD RKB 17.11.2012.The well was permanently abandoned. The P&A operations were completed 30.11.2012 and the rig was off license 04.12.2012.

The well penetrated 25 m of sand with oil shows in the Lower Kolmule Fm. (Juksa). The Knurr Fm. consisted of mudstones with no hydrocarbon shows. The Lower Kolmule sandstone produced water with traces of hydrocarbons during RCI sampling. Organic rich mudstones of the Kolje and Hekkingen Fm. with potential to generate and expel oil and gas were penetrated. The well drilled 86 m of sandstone in the Stø Fm., with weak hydrocarbon shows in places.

7. Post-drill prospectivity evaluation

The sandstone proved in the Lower Kolmule Fm. was regarded as a positive indication of a working Cretaceous play. However, the lack of moveable oil in the formation may be caused by insufficient hydrocarbon charge or up-dip leakage. No sands were encountered in the Knurr Fm., suggesting that the location may have been too distal for sand deposition.

The second Kolmule lead identified in PL490 was eventually matured into the Finnhval prospect. The Finnhval prospect is located in the western part of PL490. The license group was approved to relinquish the eastern part of PL490 3rd July 2014, consequently keeping the segment including the Finnhval prospect.

The Finnhval prospect was visible as an amplitude anomaly, but not as distinct as Juksa. Several attempts were made in order to map out a drillable structure using various geophysical approaches, but the cause of the amplitude anomaly remained uncertain (the amplitude could represent sandstone facies or be caused by refracted seismic energy in thin carbonate layers). In addition no sand was present in the corresponding interval in offset wells, and a fault complex defining the southern border of the Finnhval prospect represented risk for leakage. Therefore it was decided to relinquish the remaining part of PL490. This was communicated to the Ministry of Petroleum and Energy in letter dated 20 March 2015.