

PL947_947B Relinquishment report

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1 Key license history

PL947 and 947B are located on the Dønna Terrace in the Norwegian Sea, 10 km northwest of the Skuld/Dompap field (Fig.1). Joint Venture is composed of Vår Energi ASA (Operator 40%) and Equinor (60%).

Equinor Energy AS and Vår Energi ASA (Eni Norge AS at the time) applied for PL947 during APA 2017, and the acreage was awarded 02.03.2018, with Skywalker as main prospect (Fig. 1).

PL947 covers part of blocks 6607/6, 6607/9, 6608/4, 6608/5, 6608/7 and 6608/8, with an area of 1132 km².

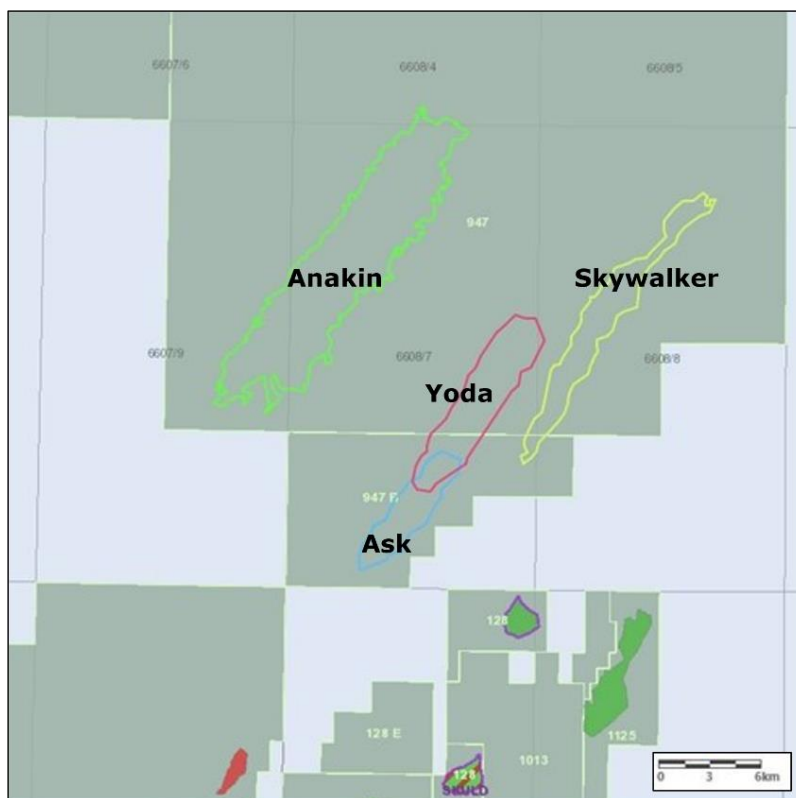


Figure 1: PL947/947B license map with Yoda, Skywalker, Ask and Anakin prospects.

PL947B covers an area of 115 km² (part of blocks 6607/7 and 6607/8) and was awarded 14.02.2020 (APA 2019), with the same work program and DoD 02.03.2021, later extended to 02.03.2022.

During the period 2018 – 2022 (Equinor operator), JV focused on Cretaceous and Jurassic prospectivity, with maturation and evaluation of Yoda, Skywalker and Ask prospects. Specifically, Yoda and Skywalker prospects are targeting Cretaceous Lange turbiditic sandstones in stratigraphic-structural traps.

Ask prospect consists of a rotated fault block with Lower-Mid Jurassic paralic sandstones Fangst and Båt (gps.) as reservoirs.

Operator (Equinor) TechEc evaluation resulted in negative economics of Yoda, Skywalker and Ask prospects, also considering common development of Yoda and Ask. Consequently, in view of DoD 02.03.2022, Operator (Equinor) suggested to relinquish the acreage due to low materiality.

Although Vår Energi agreed with Operator on the low materiality of Skywalker, Yoda and Ask prospects, it took over operatorship (Vår 40% Op., Equinor 60%) on the 29th of April 2022 with focus on the Anakin prospect, a large 4-way closure at Paleocene-Eocene level that was not considered in former prospectivity assessment.

The change of operatorship was accompanied by an additional 1-year extension of the DoD (DoD 02.03.2023), along with G&G and seismic reprocessing aimed at maturing

Anakin, which is only partially covered by the reprocessed 3D seismic EQ19M01, as part of PL947/B work program.

Anakin has been evaluated with in-house conditioned OMV15M01; a 3D seismic dataset publicly available since September 2022. Work obligations related to Vår Energi operatorship of PL947/B have been fulfilled with seismic conditioning and G&G studies.

Based on G&G work with special focus on rock physics/AVO and seismic inversion, Anakin has been downgraded, as its reservoir most likely consists of shale-prone sediments (same conclusion was reached by the former PL693 JV). Accordingly, neither volumetric computation nor risks assessment have been performed.

1.1 License meetings held.

Table 1 License meetings held.

Date	License Meeting
03.09.2018	Exploration/Management Committee License Kick-off meeting
20.04.2018	Exploration Committee Work meeting
11.09.2018	Exploration Committee Work meeting
06.12.2018	Comb. Exploration/Management Committee License meeting
21.08.2019	Exploration Committee Work meeting
05.12.2019	Comb. Exploration/Management Committee License meeting
02.07.2020	Exploration Committee Work meeting
22.10.2020	Comb. Exploration/Management Committee License meeting
08.12.2020	Comb. Exploration/Management Committee License meeting
21.10.2021	Exploration Committee Work meeting
22.11.2021	Comb. Exploration/Management Committee License meeting
16.02.2022	Management Committee License meeting
08.12.2022	Comb. Exploration/Management Committee License meeting

1.2 Reason for surrender

The absence of material prospectivity in PL947 and 947B is univocally shared in the JV partnership. Therefore, PL94 and /947B are relinquished.

2 Database overview

2.1 Seismic Data

License prospectivity has been evaluated using the 3D reprocessed EQ19M01 seismic dataset and conditioned OMV15M01 (Fig. 2).

EQ19M01 derived from Equinor broadband reprocessing of 3D seismic datasets over an area of 5051 km² in the Dønna Terrace/Nordland Ridge area. Specifically, 1478 km² of EQ19M01 have been used to evaluate the Jurassic, Cretaceous and partly the Paleocene prospectivity of PL947/947B. PGS survey PGS16005 (NPDID 8321) was the input data for EQ19M01 in the PL947/B license area.

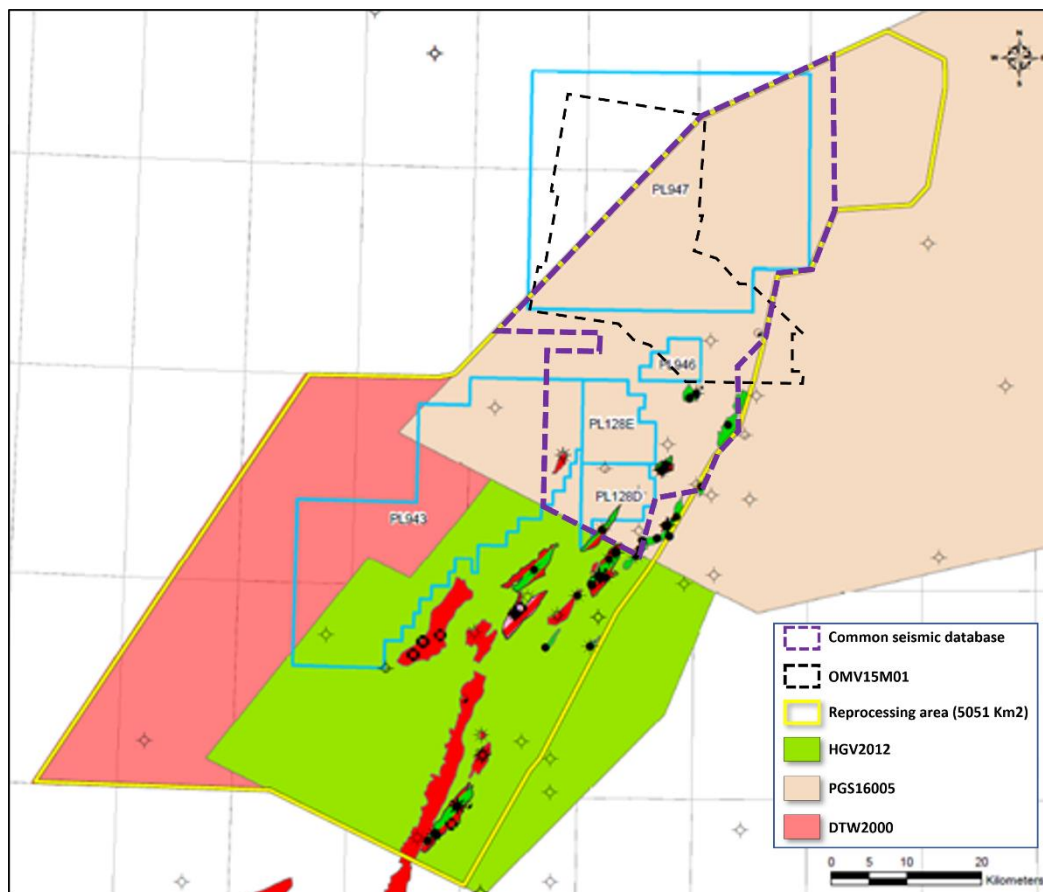


Figure 2: Overview map with location of the license area, seismic surveys covering PL947/947B, common seismic database (purple outline), wells, fields, and discoveries.

Table 2: 3D common seismic database

The list includes seismic dataset name, NPDID, datatype and processing type.

Dataset Name	NPDID	Data Type	Processing Type
PGS16005	8321	Full stack, angle stacks and gathers	PSDM
EQ19M01*	n.a.	Full stack, angle stacks and gathers	PSDM
OMV15M01**	n.a.	Full stack, angle stacks and gathers	PSTM

* EQ19M01 is a merge of PGS16005 (NPDID 8321), MC3D-HVG2012 (NPDID 7616), and MC3D-DTW2000 (NPDID 4047).

** OMV15M01 is a merge of ST0114 (NPDID 4139) and ST9405 (NPDID 3687)

2.2 Well data

The common well database comprises public available data from released wells listed in Table 2. The list includes well name, NPDID number, content, reservoir unit with HC and formation at TD.

Table 3: Well database

<i>Well</i>	<i>NPDID</i>	<i>Content</i>	<i>Reservoir with HC</i>	<i>Formation at TD</i>
6507/2-1	911	Shows	Lysing, Lange Fms, Fangst and Båt Gps	Åre Fm
6507/2-2	1840	Gas/Cond	Lysing and Lange Fms	Åre Fm
6507/2-4	5685	Gas/Cond	Lysing Fm	Lyr Fm
6607/12-3	7039	Gas	Lang, Ile and Åre Fms	Åre Fm
6607/12-2S	6642	Oil/Gas	Lange Fm, Fangst and Båt Gps	Åre Fm
6608/8-2	2989	Dry	No	Red Beds
6608/10-1	1391	Gas	No	Åre Fm
6608/10-2	1782	Oil/Gas	Fangst and Båt Gp	Åre Fm
6608/10-3	1732	Oil/Gas	Fangst and Båt Gp	Åre Fm
6608/10-4	2256	Oil/Gas	Melke and Garn Fms	Åre Fm
6608/10-6	3260	Oil	Melke and Åre Fms	Åre Fm
6608/10-7	4273	Oil	Melke and Åre Fms	Åre Fm
6608/10-8	4439	Oil	Melke, Not, Ile, Tilje and Åre Fms	Åre Fm
6608/10-9	4668	Oil	Melke Fm	Åre Fm
6608/10-10	4699	Dry	No	Åre Fm
6608/10-11S	5386	Gas	Not Fm	Tilje Fm
6608/10-12	5949	Oil	Åre and Lysing Fms	Åre Fm
6608/10-12A	6029	Oil	Åre Fm	Åre Fm
6608/10-13	6235	Dry	No	Åre Fm
6608/10-14S	6306	Oil/Gas	Melke, Ile, Tofte Fms	Åre Fm
6608/10-15	7245		Melke and Åre Fms	Åre Fm
6608/10-16	7404	Shows	Lange, Garn and Ile Fms	Åre Fm
6608/10-17S	8065	Oil/Gas	Lange Fm	Spekk Fm
6608/10-18	8506	Oil	Lange Fm	Melke Fm
6608/11-1	936	Dry	No	Grey Beds
6608/11-2	4189	Oil	Åre Fm	Grey Beds
6608/11-3	4630	Dry	No	Grey Beds
6608/11-4	4939	Oil	Tilje Fm	Red Beds
6608/11-5	5316	Shows	Åre Fm	Red Beds
6608/11-6	5868	Dry	No	Åre Fm
6608/11-7S	6701	Dry	No	Red Beds
6608/11-8	7194	Dry	No	Åre Fm
6710/10-1	3941	Dry	No	Springar Fm

3 Results of geological & geophysical studies

PL947/B prospectivity was evaluated through a variety of G&G studies along with seismic reprocessing (EQ19M01 and conditioned OMV15M01).

G&G work consisted of: i) Seismic interpretation and mapping; ii) Basin modeling; iii) AVO/rock physics studies; and iv) Prospect evaluation.

In the sections below, the main results of these studies are given:

3.1 Seismic reprocessing, mapping, and basin modeling

The 3D reprocessing of PGS16005, resulting in part of EQ19M01 included in the common seismic database, was aimed at improving the imaging of the Cretaceous section, to better delineate the Skywalker and Yoda prospects, both defined by one or more components of stratigraphic pinch-out. Additionally, EQ19M01 resulted in a better imaging of the structural framework, with impact on faults definition and delineation of Ask prospect at Jurassic level.

As the Anakin was only partially covered by the EQ19M01, a new seismic reprocessing over this prospect and immediate surroundings was under planning. However, 3D OMV15M01 (including angle stacks and gathers), which become publicly available in Q3 2022, was included in the common seismic database for Anakin evaluation and seismic reprocessing of legacy 3D seismic was dropped.

The OMV15M01 3D dataset fully covers the Anakin prospect and is a reprocessed version of ST0114 and ST9405 3D seismic. A seismic conditioning processing was applied to the OMV15M01 survey, aimed at enhancing the vertical and horizontal resolution to increase the mapping confidence and amplitude preservation for amplitude and AVO analysis.

Framework interpretation was performed on the recently acquired 3D seismic (PGS16005) and the key surfaces/prospect intervals were updated when the final delivery of EQ19M01 was received. Remapping of the Skywalker prospect on the new EQ19M01 resulted in a poor trap definition at its northern termination due to a patchy amplitude anomaly.

Basin modeling studies have been performed considering the Spekk hot shales as source rock, as well as Cretaceous (Cenomanian-Turonian) organic-rich facies, with the former representing the main source for the Cretaceous-Jurassic prospects. On the contrary, Spekk was overmature at the time or after Anakin trap had formed, whose charge relies mainly on a Cretaceous source rock.

3.2 Geophysical observations and AVO/PCube+ assessments

Geophysical observations for the Cretaceous (Skywalker and Yoda prospects), Jurassic (Ask prospect) and Paleogene (Anakin prospect) prospectivity have been performed.

For the Jurassic targets, a detailed geophysical evaluation has been carried out with focus on fluid substitution modelling within Melke and Ile/Tofte reservoirs and AVO analysis. Results from this study indicate that: i) Differentiating between fluid and lithology effects in the typically poor reservoir facies of the Melke Fm. is challenging; and ii) No evident DHI characterize top Ile and Tofte reservoirs.

A detailed geophysical evaluation has been carried out for the Anakin prospect, including AVA and a statistic inversion (Pcube+), with the latter including 10 PCube+ models using input from different wells. Inversion result suggests that the Anakin prospect is most likely a shale-dominated unit, similarly to correlative Tare and Tang shales penetrated by well 6607/12-1.

4 Technical evaluation and prospect update

4.1 Cretaceous prospectivity

Skywalker prospect.

Skywalker was the driving prospect for the APA 2017 application and considered the northern continuation of the Lange Fm. sand-rich trend recorded by the Cape Vulture discovery. Skywalker has been updated and remapped utilizing EQ19M01, which has formed the basis for risking and volumetric calculations.

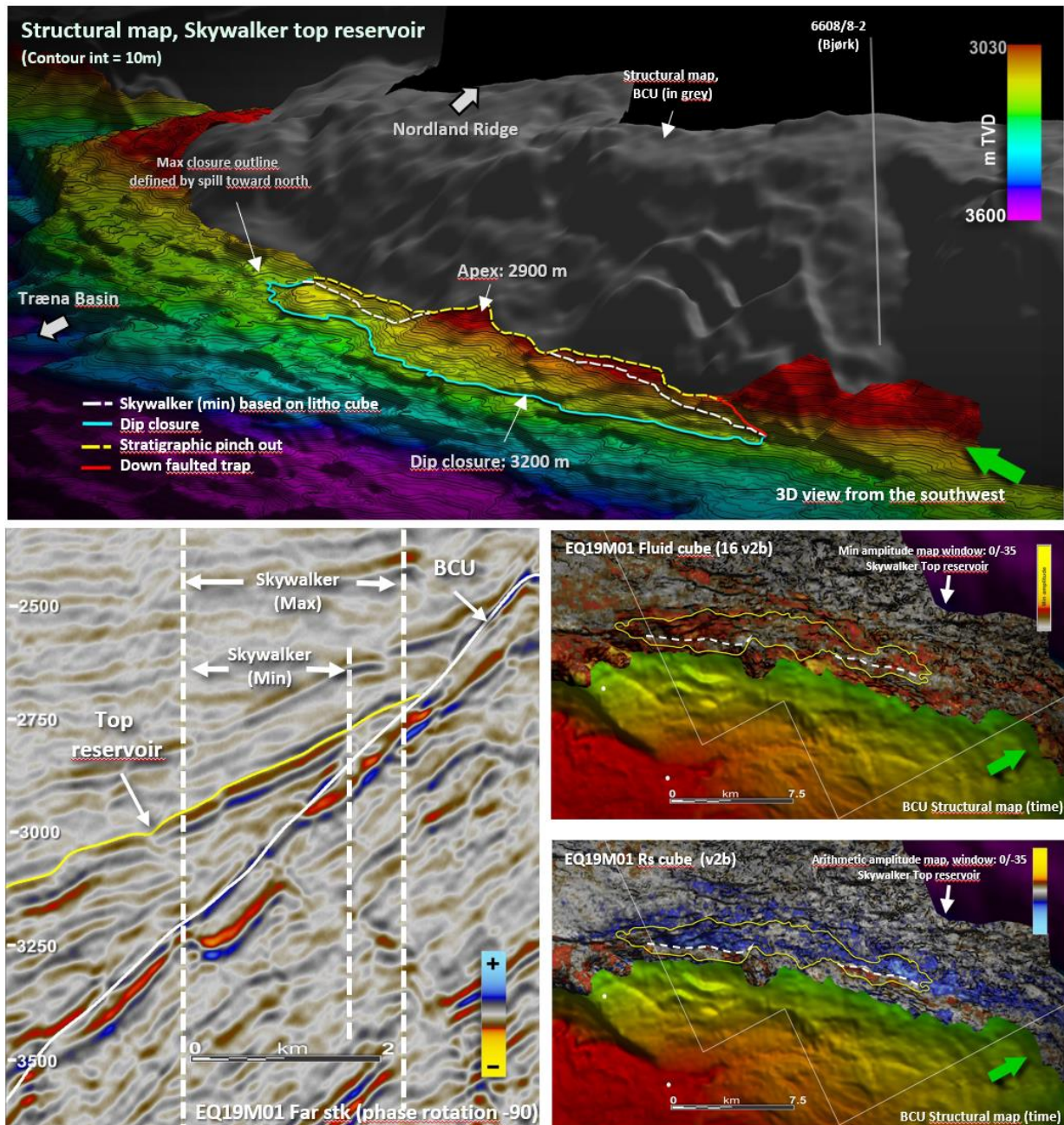


Figure 3: Skywalker prospect targeting intra Lange sandstones.

The reservoir target of the Skywalker prospect is represented by Turonian-Cenomanian sandstones of the Lange Fm. in a stratigraphic-structural combination

trap (Figure 3). Lange sandstones at Skywalker prospect thin out northwards, southwards, and westwards (Figure 3), while Lyr Fm. represents its bottom seal.

Trap was regarded as key risk, in addition to moderate risks on seal, reservoir quality and charge. Source for the Skywalker prospect was the Jurassic Spekk hot shales and Åre Formation. Skywalker has been updated and remapped utilizing the EQ19M01 survey, which has formed the basis for risking and volumetric calculations.

Yoda prospect

Yoda prospect is a stratigraphic-structural trap defined by an AVO class 2/3 anomaly (Figure 4).

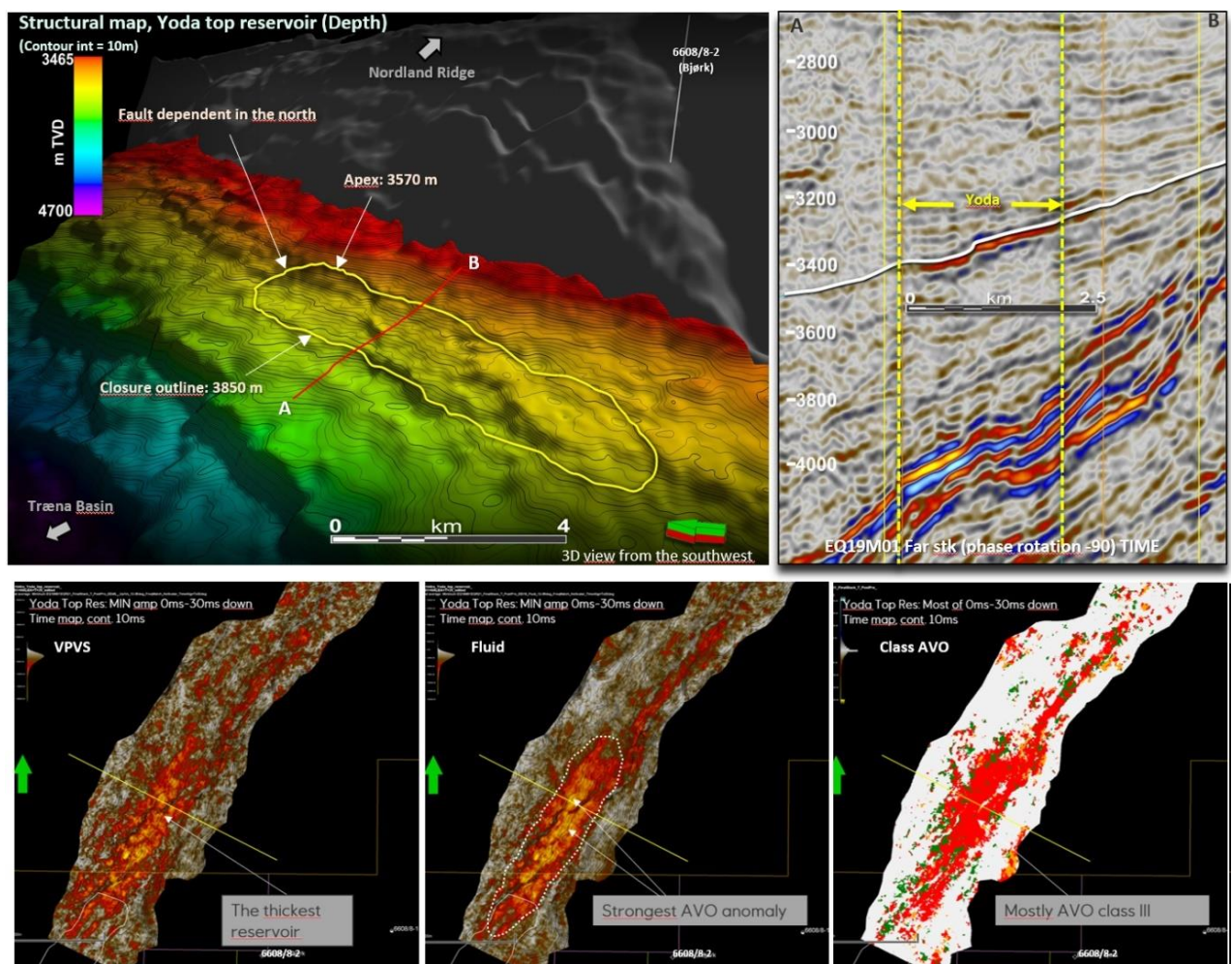


Figure 4: Yoda prospect targeting intra Lange sandstones.

This could indicate better quality sandstones than at Skywalker location, with the latter corresponding to AVO class 2p anomalies. In the area, all wells penetrating AVO class 2p, 2 or 3 anomalies in the Lysing or Lange fms have proven sandstones.

Yoda has been updated and remapped utilizing the EQ19M01, which forms the basis for the risking and volumetric calculations. The main risk of Yoda is the trap (anomaly continues updip as shown in Figure 4). Expected HC phase is either oil or gas.

4.2 Jurassic prospectivity

Ask prospect

Ask is the only Jurassic prospect identified in the license (Figure 5). It consists of a rotated fault block with possible stacked reservoirs in the Melke, Ile/Tofte and Tilje formations. Reservoir conditions are expected to be HP/HT or near HP/HT.

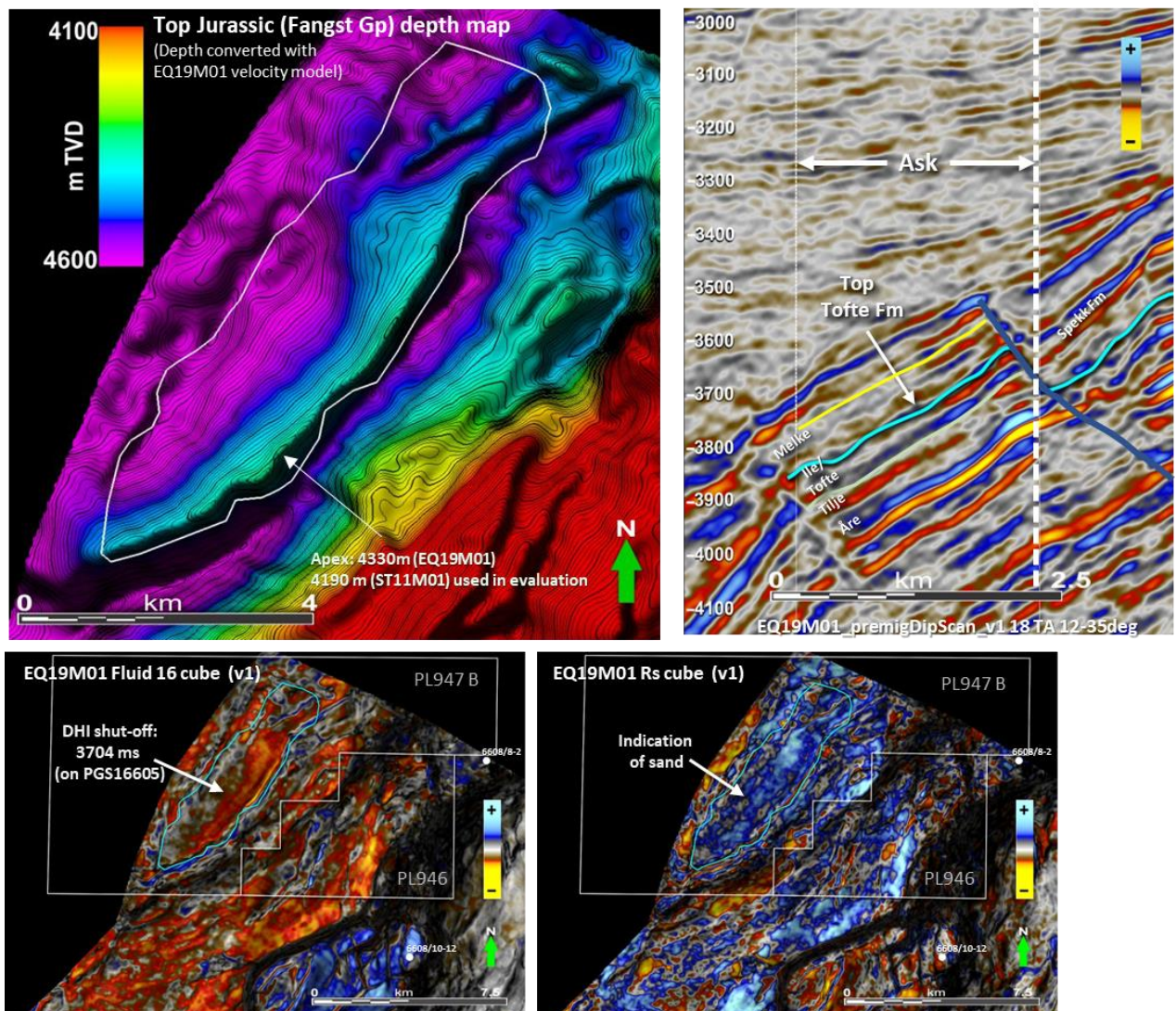


Figure 5: Ask prospect targeting Melke, Ile/Tofte and Tilje formations.

Ile/Tofte Fm. is regarded as the main reservoir with the apex at 4330 TVDSS. Porosity estimates at reservoir depth are in the range of 6-9%, with low probability of porosities up to 12%.

Main risks are reservoir quality due to the burial depth and seal due to possible Upper Jurassic (intra Melke sandstones) thief sands, juxtaposed along the eastern bounding fault. Ask has been updated and remapped utilizing the EQ19M01. The volume potential in the prospect is limited.

4.3 Paleogene prospectivity

Anakin prospect

Anakin is a large 4-way structure resulting from Late Miocene inversion tectonics. It consists of wedge-shaped seismic units referable to the latest Paleocene-earliest Eocene Tare Fm (Figure 6). Specifically, three lobate seismic bodies make up the Anakin prospect (hereafter Anakin lobe complex), with the mid lobe forming the apex of the structure and the youngest of the three (Anakin Main Lobe).

From a seismo-stratigraphic perspective, Anakin Main Lobe is onlapped by the uppermost Tare Fm. (Figure 6), and it is overlain by a strong hard event mimicking the seismic response in the area just above the onlap (Figure 6). The latter indicates

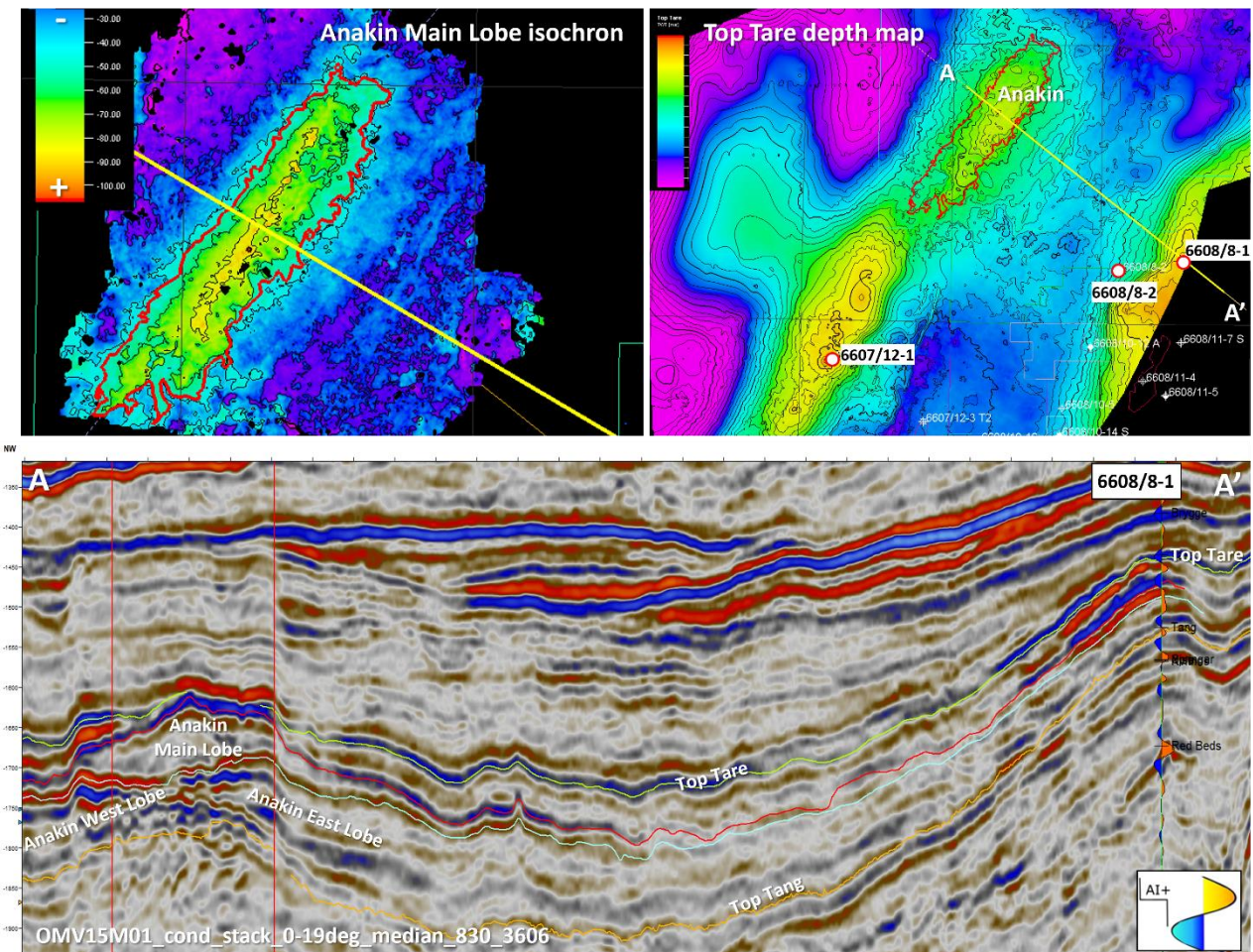


Figure 6: Seismic line (OMV15M01) showing the correlation between Anakin and the 6608/8-1 well. Top Tare depth map is also shown with comparison between the Anakin structure and the one penetrated by the 6607/12-1 well. Isochron of Anakin Main Lobe is also shown.

that Anakin was a positive feature at the seabed during deposition of uppermost Tare Formation.

In the Norwegian Continental Shelf, Paleocene is a tectonically active period with local influx of large amount of sand related to the interplay between emerged areas and local depocenters (e.g., Egga Member of the Ormen Lange field). Specifically, a Paleocene depocenter is located northeast of PL947/PL947B (block 6710) where the 6710/10-1 well encountered about 700 m of Egga sandstones in the Tang Formation.

On the contrary, the Tare Fm. typically deposited during a tectonically quiescent period, as documented by Anakin nearby wells, among them the 6607/12-1 well, which tested a 4-way closure immediately south of Anakin structure and did not prove any relevant sandstone, except for sand stringers in Springar, uppermost Tare and Brygge formations.

Although questionable reservoir presence, Anakin 4-way closure was viewed as an attractive opportunity worth of specific G&G studies to fully evaluate its exploration potential.

Expected hydrocarbon phase for Anakin is gas from Cenomanian-Turonian source rock(s), as the Spekk Fm. is estimated to be overmature at the time of trap formation and after deposition of an adequate thickness of seal.

An AVA study was performed on individual Anakin lobes, with focus on Anakin Main Lobe, whose top was mapped on a soft event becoming slightly softer with angle (Class 2/3 AVA, Figure 7).

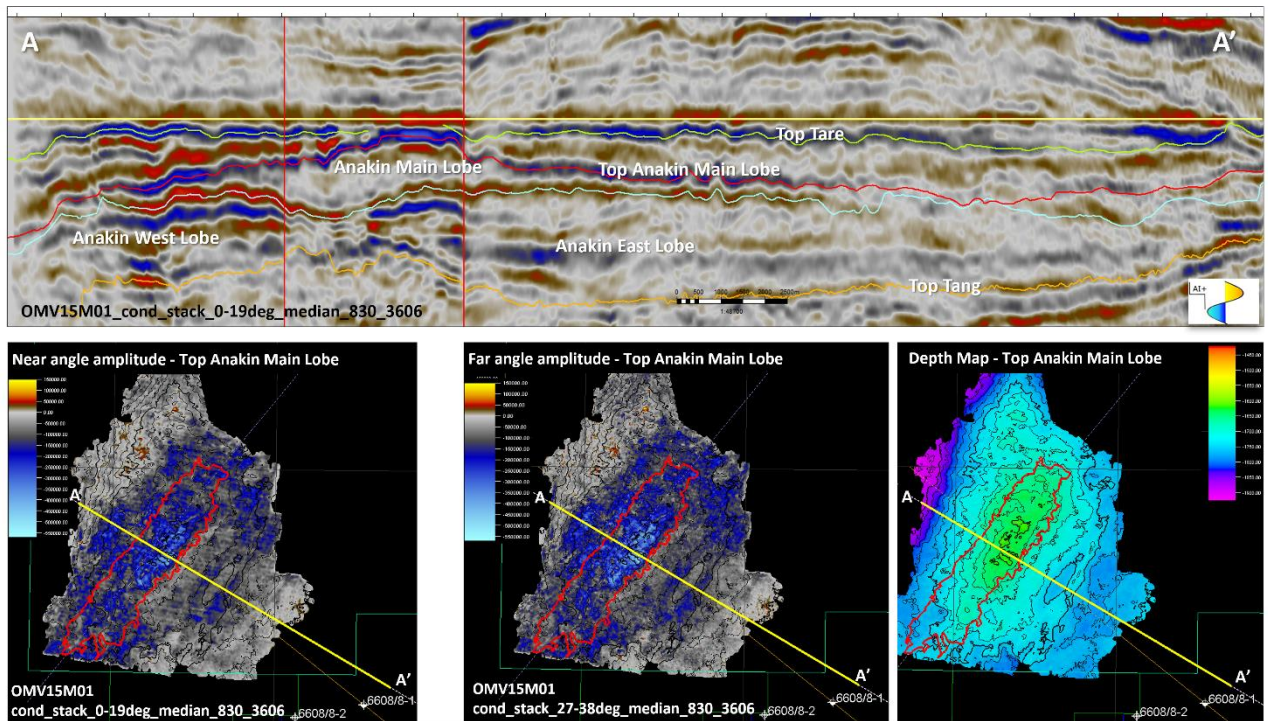


Figure 7: Flattened seismic line on the hard event above Top Tare showing Top Anakin Main Lobe and overall Anakin seismo-stratigraphic architecture. Top Anakin Main Lobe depth map and near and far angles amplitude are also shown.

However, such a soft anomaly is mimicking in extent the hard event above, with further complications related to the stratigraphic pinchout of uppermost Tare Fm. against Anakin Main Lobe, which make it challenging to interpret such a seismic response in terms of hydrocarbons saturation.

Moreover, a seismic forward model based on a hard shale above a Paleocene sand from the 6710/10-1 well showed that a potentially HC filled sand below a hard shale should respond as a class 4 AVA.

Finally, a statistic inversion study performed in Pcube+ with input from different wells showed that Anakin Main Lobe likely consists of shale-dominated sediments with acoustic properties similar to Tang shales penetrated by well 6607/12-1 (Figure 8).

Geophysical studies has downgraded Anakin, showing that its reservoir most likely consists of shale-prone sediments. Accordingly, neither volumetric computation nor risks assessment have been performed

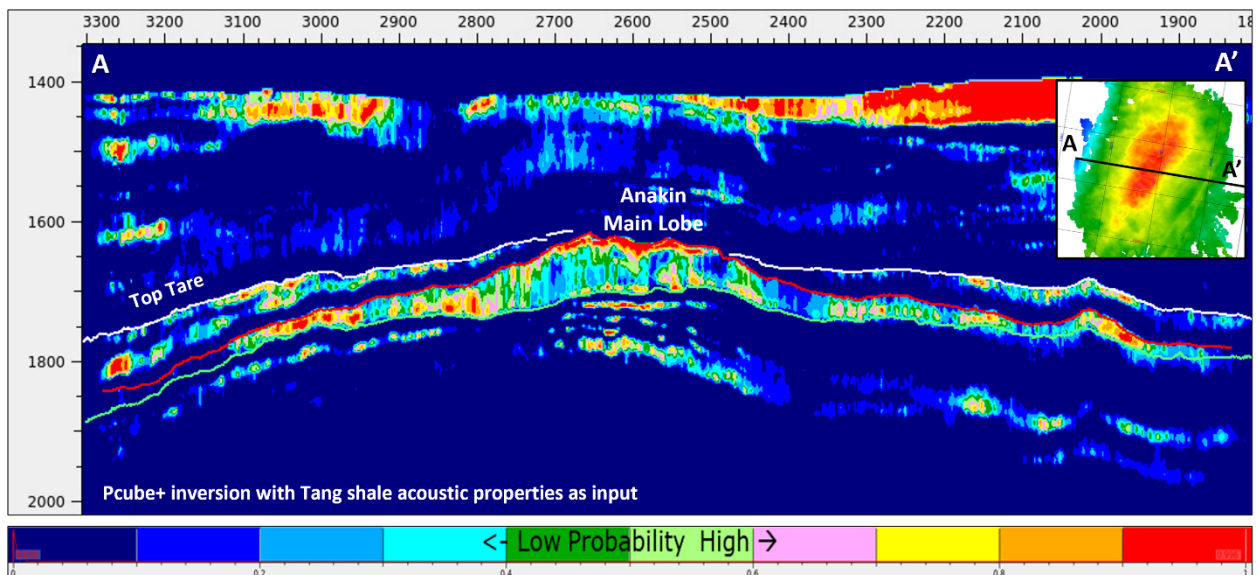


Figure 8: Anakin - PCube+ run based on the acoustic properties of Tang shale from 6607/12-1.

4.4 Prospective resources considered remaining in PL947/947B at time of surrender.

Yoda has a mean, unrisks potential of 16.3 Sm³ HIIP with a POS_{dhi} of 23% (geological POS of 15%), with 50% oil vs gas chance. Trap is the main risk, with reservoir efficiency and charge as minor risks.

Skywalker has a mean, unrisks potential of 14.2 Sm³ HIIP with a POS_{dhi} of 13% (geological POS 13%). Main risk is envisaged to be trap, with charge as a subordinate risk.

Ask has a mean, unrisks potential of about 5.59 Sm³ HIIP with a geological POS of 32%. Due to a burial depth of more than 4300 m TVDSS, reservoir quality is the main risk.

Table 4: Resource potential

Prospect	In-place (total) MSm3			Recoverable (total) MSm3			In-place (oil) MSm3			Recoverable (oil) MSm3			In-place (gas) MSm3			Recoverable (gas) MSm3		
	P90	Mean	P10	P90	Mean	P10	P90	Mean	P10	P90	Mean	P10	P90	Mean	P10	P90	Mean	P10
Skywalker*	2,11	14,20	32,10	0,37	2,51	5,73	1,73	11,60	26,20	0,27	1,87	4,29						
Yoda**	0,40	16,30	41,00	0,12	4,90	12,50	0,50	18,00	43,40	0,10	2,88	7,00	0,20	8,48	21,40	0,14	5,09	13,00
Ask (aggregated)	2,07	5,59	10,40	1,28	3,24	5,93	2,91	5,85	10,20	0,70	1,50	2,66	1,70	4,10	7,39	1,24	3,08	5,69
Anakin																		

*Oil RF: 10-15-25 **Gas/Oil phase risk: 0,50 Oil RF: 10-15-25 Gas RF: 50-60-70 ***Gas RF: 50-60-70

Table 5: Probability of discovery

Prospect	Probability of discovery (POS _o)	Probability of discovery DHI conditioned (POS _{DHI})
Skywalker	13	No uplift
Yoda	15	23
Ask (aggregated)	32	No uplift
Anakin	n.a.	n.a.

5 Conclusions

The work program for PL947/947B has been fulfilled. The main prospects (Yoda and Skywalker) and Jurassic prospect (Ask) have been screened/evaluated within the specified timeframe and several G&G studies have been completed.

Based on the prospectivity evaluation carried out by the former Operator (Equinor), and Vår Energi ASA, it is herein recommended relinquishing the PL947 and PL947B due to:

Negative economics of Skywalker, Yoda and Ask prospects (Unrisked Pmean recoverable resources below the MEFS) and high likelihood of shale-prone reservoir for Anakin prospect. The lack of attractive prospects (limited volume potential and/or low probability of geological success) the PL947/947B partnership agreed to drop the license.