PL 862

License Status Report

Contents

1. Introduction

1.1 PL862 Summary and Explanation of Grounds for Lapse

PL862 is located on the Sørvestlandet High to the west of the Ula and Gyda fields. The license area of 1953 km^2 covers part of Block 2/1, 2/2, 2/3, 8/7, 8/8, 8/10, 8/11, 8/12 and includes four existing discoveries; 2/2-5, 2/2-1, 2/2-2 and 2/3-1 (Ref. Fig.1). The license was awarded to A/S Norske Shell (Operator 50%) and Aker-BP (50%) on 10.02.2017 with the initial 2-year phase ending on 10.02.2019 with a data acquisition or drop decision. As part of the first phase work programme 3D seismic was acquired (licensed) and reprocessed, which upon confirmation from Oljedirektorat fulfilled both the work programme commitment of phase 1 and the criteria for progression to the second 2-year phase ending with a Drill or Drop decision on 10.02.2021.

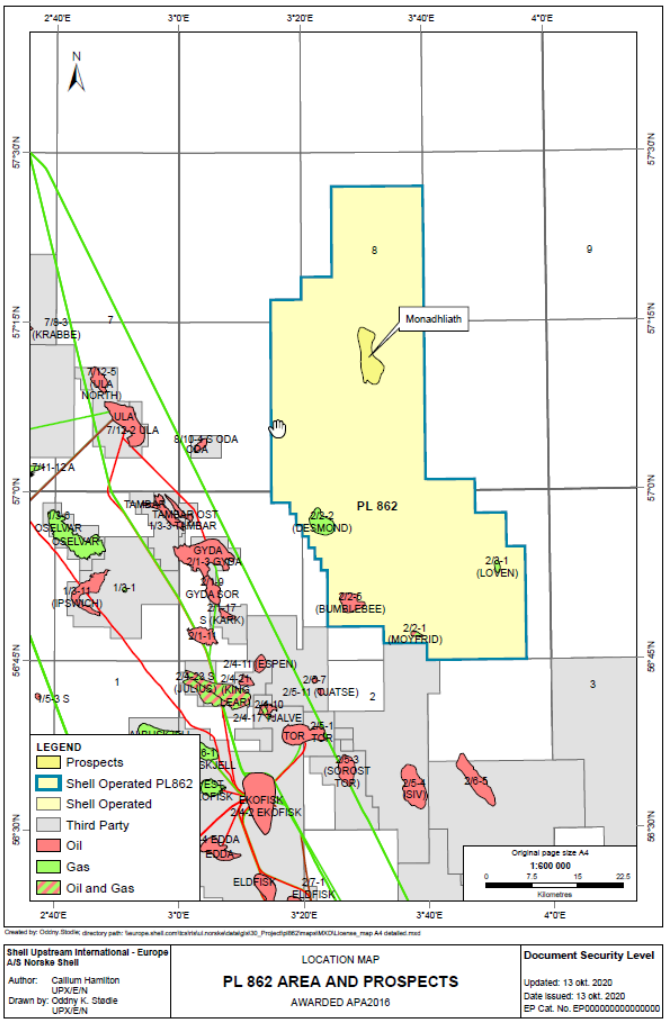


Figure 1 - PL862 Prospect and Discovery Map

The Upper Permian, Upper Rotliegend Group was identified as the primary prospective interval at license application. The play model is Upper Rotliegend Group Auk reservoir eq. (NPD Upper Rotliegend Gp. 2) charged by Carboniferous source rocks and sealed by Upper Rotliegend shale. The key risk is charge owing to the uncalibrated nature of the hypothesised Carboniferous source. Additional challenges for the play relate to trap geometry and depth uncertainty. The Permian play and the anchor prospect Monadhliath was the focus of much of the license technical work programme and following a full G and G evaluation, Monadhliath is assessed at Pmean 5.3 BCM and 5% POS.

Additionally, the Upper Jurassic Ula play was assessed to review the prospectivity of the existing discoveries and Jurassic 4-way closures considered leads at license application. Following review, neither the Jurassic leads nor discoveries were deemed attractive enough for further study or drilling on account of low gPOS and low commerciality.

The Permian play and Permian anchor prospect, Monadhliath, is due to lower POSg and lower volume not considered a drilling candidate. No other Permian prospects are considered more attractive. Therein, no drillable prospects have been identified and the partnership has agreed to relinquish the licence. A technical summary of the Monadhliath evaluation is given in Table 1 and the resulting volume and risk summary is given in

Table 2.

1.2 Status of Work Commitment

The first 2-year phase firm work programme consisted of 3D seismic reprocessing. The partnership acquired 1074 km^2 of the CGG Cornerstone TomoML Survey and reprocessed these data to PreSDM dataset SH18M02. With reference to Oljedirektoratet correspondence (OD 2018/875) from 8.10.2018, the acquisition and subsequent

reprocessing of these data was approved as both fulfilment of the Phase 1 work programme and the qualifying seismic acquisition (licensing) required to enter Phase 2.

1.3 Licence Meetings

The following PL862 Management and Exploration committee meetings have been held:

- 2017, March 30th, EC/MC Committee meeting #1
- 2017, November 29th: EC/MC Committee meeting #2
- 2018, May 8th, EC/MC work meeting
- 2018, November 8th, EC Committee meeting #3
- 2019, November 26th, EC/MC Committee meeting #4
- 2020, October 21st, EC/MC Committee meeting #5

Table 1 - Summary of Monadhliath technical evaluation

Name	Play	Status	Prospect summary
Monadhliath	Permian	Prospect	Monadhliath is a 4-way dip closed structure. The reservoir is Auk formation eq. sealed by shaly/silty Fraserburgh Fm (Upper Rotliegend Gp). Both formations are proven and correlated from offset well 8/10-3. Charge is supplied from an unproven source rock basin to the N-NE which is interpreted as either Low. Permian or Lower Carboniferous. Monadhliath is assessed at Pmean 5.3 BCM and 5% POS. Charge is considered the primary risk (0.4) where license work has reduced confidence in the presence of source rock. In addition, modelling showed it challenging to charge Monadhliath whilst also honouring offset dry holes. Seismic reprocessing and velocity modelling deepened and flattened the Monadhliath structure. Thus reducing the reservoir potential and introduced a greater seal and reservoir risk wrt. the overlaying Fraserburgh fm (Upper Rotliegend Gp) which constitues a risk of reservoir waste zone in structure. On the basis of low POS, low volume outcome of the technical evaluation. Monadhalith was not proposed as a drill opportunity.

Table 2 – Monadhliath Volume and POS summary

Name	P90 Rec. (BCM)	P50 Rec (BCM)	P10 Rec. (BCM)	Pmean Rec. (BCM)	POSg
Monadhliath	0,6	4,3	11,6	5,3	5%

2. Database Overview

2.1 Common Well Database

Table 3 - Well Database

PL862						
Well	Date	Operator	TD (m MD)	Well class	Content	Oldest age
2/1-12	1999	BP Norway Ltd	3550	WILDCAT	DRY	MIDDLE JURASSIC
2/4-20	2008	ConocoPhillips Skandinavia AS	5719	WILDCAT	DRY	EARLY PERMIAN
2/7-31	1999	Phillips Petroleum Company Norway	4968	WILDCAT	OIL (EARLY CRETACEOUS)	EARLY PERMIAN
2/9-4	2008	ConocoPhillips Skandinavia AS	5500	WILDCAT	DRY	EARLY PERMIAN
3/8-1	2010	Lundin Norway AS	4070	WILDCAT	DRY	EARLY PERMIAN
7/4-2	2008	Lundin Norway AS	3459	APPRAISAL	OIL (LATE JURASSIC)	LATE PERMIAN
7/11-12 A	2011	ConocoPhillips Skandinavia AS	5672	WILDCAT	GAS (LATE JURASSIC)	TRIASSIC
7/11-12 S	2011	ConocoPhillips Skandinavia AS	5420	WILDCAT	SHOWS	TRIASSIC
7/12-13 S	2012	Det norske oljeselskap ASA	4575	WILDCAT	DRY	MIDDLE TRIASSIC
8/5-1	2013	Lundin Norway AS	2405	WILDCAT	DRY	TRIASSIC
8/10-3	2010	ConocoPhillips Skandinavia AS	5738	WILDCAT	DRY	EARLY PERMIAN
8/10-4 S	2011	Centrica Resources (Norge) AS	3071	WILDCAT	OIL (LATE JURASSIC)	LATE PERMIAN
8/10-6 S	2014	Centrica Resources (Norge) AS	2256	WILDCAT	DRY	PERMIAN
9/4-5	2006	ExxonMobil Exploration and Production Norway AS	5881	WILDCAT	DRY	CARBONIFEROUS

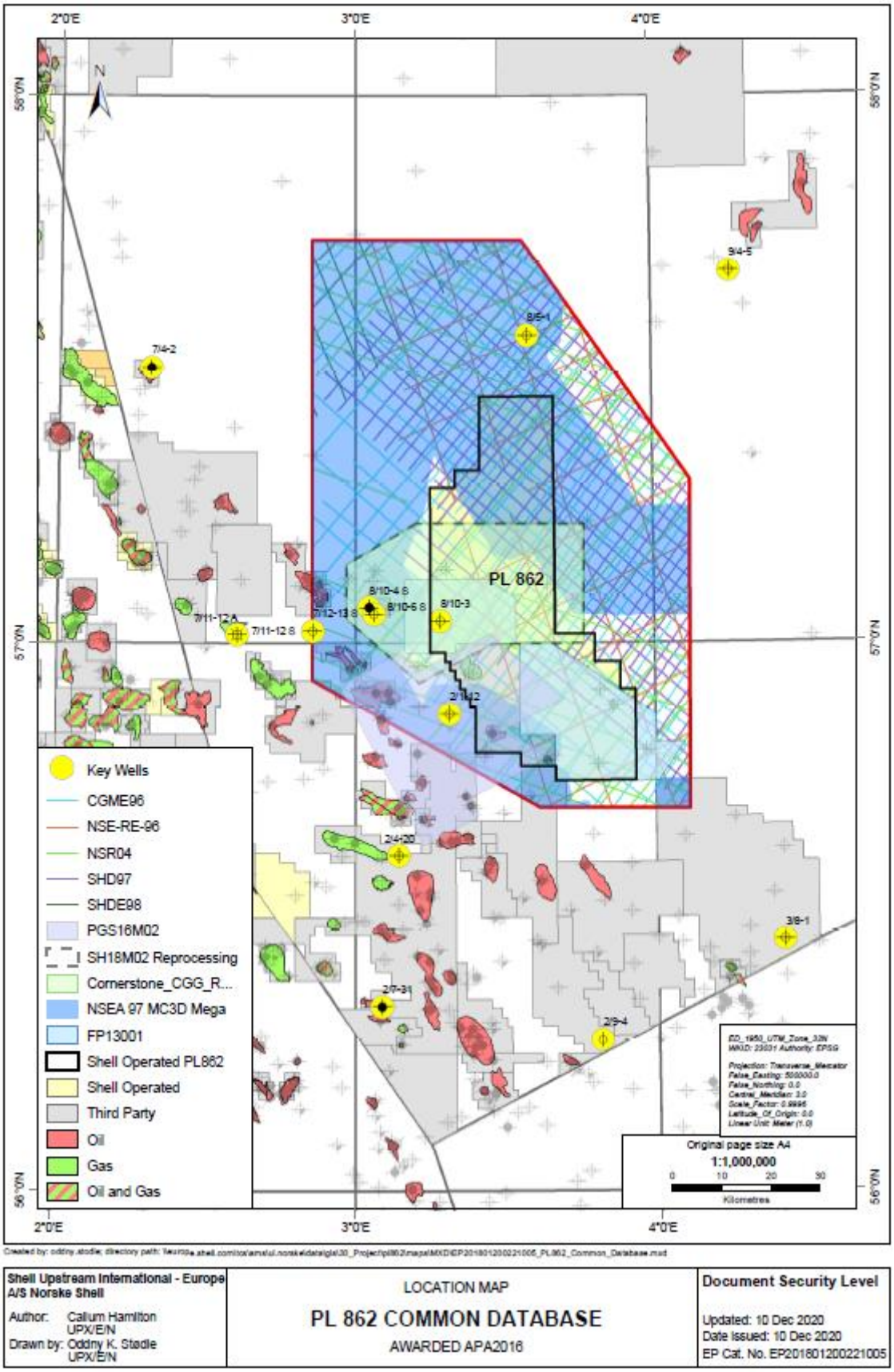
The common well database only includes wells that are younger than 20 years. Of the listed wells, Aker BP, did not possess full access to 3/8-1. For this well only raw data was used in the evaluation. Additional wells older than 20 years were used in the evaluation but are not listed.

2.2 Seismic Database

PL862 was evaluated on combined 2D-3D public seismic data pre application. During the license evaluation two surveys: CGG Cornerstone TOMO ML and PGS16M02 have been added to the license database. In addition, the CGG Cornerstone TOMO ML was reprocessed by the Operator to survey SH18M02 to target the structural uncertainties relating to the Monadhliath prospect. A summary of the license 2D and 3D seismic common database is shown in Table 4. A map is shown in Figure 2.

Table 4 - Table of 2D and 3D Seismic Database

Survey	Type	Year	ID	Notes
NSR04	2D	2004	4260	
CGME96	2D	1996	3758	
SHD97	2D	1997	3879	
SHDE98	2D	1998	3947	
NSE-81-RE96	2D	1981	2445	
SET96	2D	1996	3802	
PGS16M02 (PGS15908CGR)	3D	2016	N/A	
CGG Cornerstone TOMO ML	3D	2014	N/A	Not stored in Diskos
SH18M02	3D	2018	N/A	Shell Reprocessing of CGG Cornerstone
NSEA 97 MC3D Mega	3D	2013	N/A	
FP13001	3D	2013	7849	



Shell Upstream International - Europe A/S Norske Shell Author: Callum Hamilton UPX/E/N Drawn by: Oddny K. Stødle UPX/E/N	LOCATION MAP **PL 862 COMMON DATABASE** AWARDED APA2016	**Document Security Level** Updated: 10 Dec 2020 Date Issued: 10 Dec 2020 EP Cat. No. EP201801200221005

Figure 2 – PL862 Common Well and Seismic Database

3. Results of Geological and Geophysical Studies

3.1 General G & G Studies

The following general G and G studies were undertaken in the license evaluation:

- Gravity and magnetic study
- Mapping of key prospect seismic events: Base Zechstein, Top Auk, BCU and Top Vade
- Semi-regional seismic mapping across the full stratigraphy.
- Rock physics and AVO modelling study of Permian and Jurassic plays.

3.2 Seismic Reprocessing

The CGG Cornerstone TOMO ML 3D seismic data was reprocessed over the southern area Monadhliath prospect in order to address interpretation certainty, spill point and structural relief. Additionally, the reprocessing AOI included key offset wells 8/10-3 and 8/10-2 for calibration. Improved imaging and velocity modelling increased confidence of structure definition, depth prognosis and offset well calibration. Two migrations, Kirchhoff PSDM and Reverse Time Migration, were completed. Figure 3 shows a seismic traverse of the reprocessing overlain by the velocity model update.

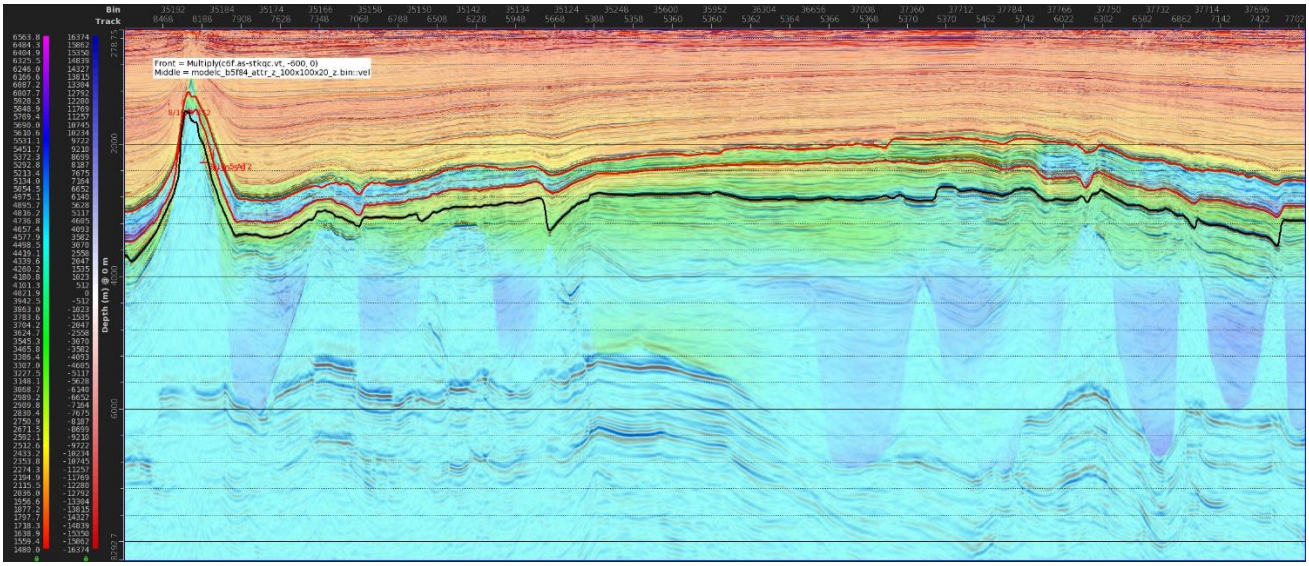


Figure 3 - SH18M02 Kirchhoff PSDM Seismic overlain with Interval velocity (m/s)

3.3 Hydrocarbon Plays Introduction

The license technical evaluation initially focussed on assessing the Permian play risk with a view to de-risking the portfolio of the Upper Permian Gp. prospects-applied-for. Figure 4 depicts the stratigraphic, structural and petroleum exploration related elements of the license area for reference.

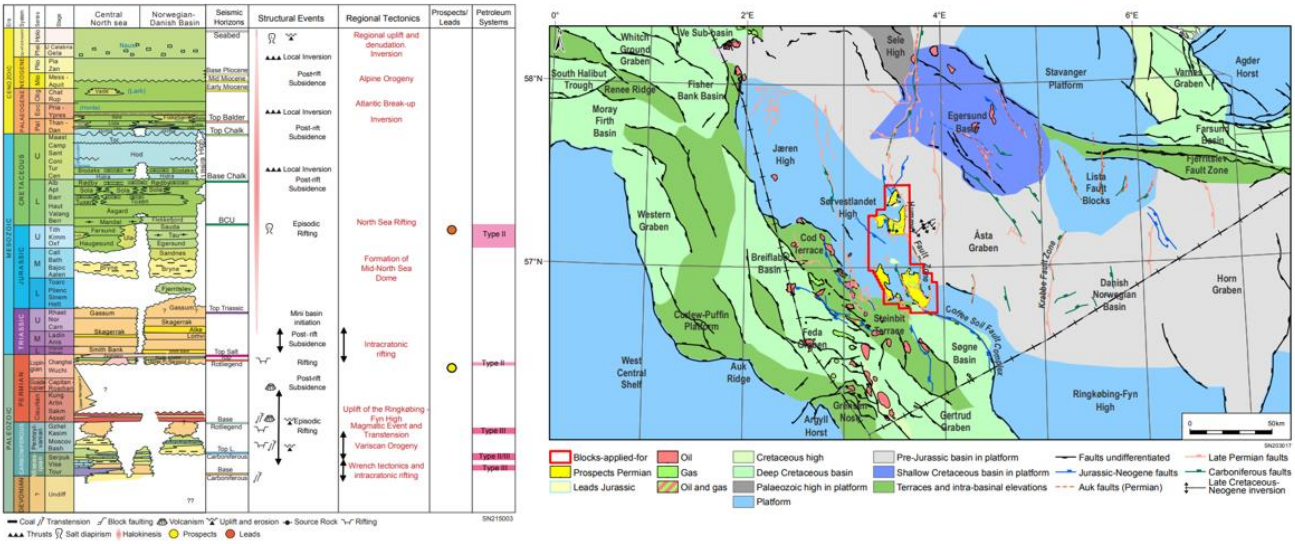


Figure 4 - Structural Framework and Tectono-Stratigraphic Chart. Chronostratigraphic and lithostratigraphic column illustrating key structural events and prospective intervals.

The Permian prospects-applied-for (Figure 5) are defined by three-way tilted fault blocks and 4-way dip closures. The primary reservoir target is a Rotliegend Auk fm equivalent which is proven in the area of the Sørvestlandet High by offset well 8/10-3. Seal relies upon Upper Rotliegend shaly/silty lithologies of the herein named Fraserburgh Fm, which constitutes a significant retention and reservoir waste zone risk. Charge from Carboniferous or Permian source rock is considered the main risk on account of the lack of calibrated in the area. At application, charge was proposed from an Upper Carboniferous source rock located in a section of thickened strata N-NE of the license. However, subsequent license work has interpreted the Upper Carboniferous as absent and consequently the prospects rely upon Low. Carboniferous source. Risks and uncertainties relating to structure i.e. trap geometry, relief and depth were notable and grounds for reprocessing.

The Upper Jurassic Ula formation was considered a secondary play target at application with 4-way dip closures at Base Cretaceous level identified as leads (Figure 5). The reservoir targets are Ula formation shoreface sands charged from the Steinbit Terrace or local Upper Jurassic mini basins. Charge is considered the main subsurface risk on account of the complex, halokinetically controlled depositional and preservation history making source to sink connection complex and tortuous.

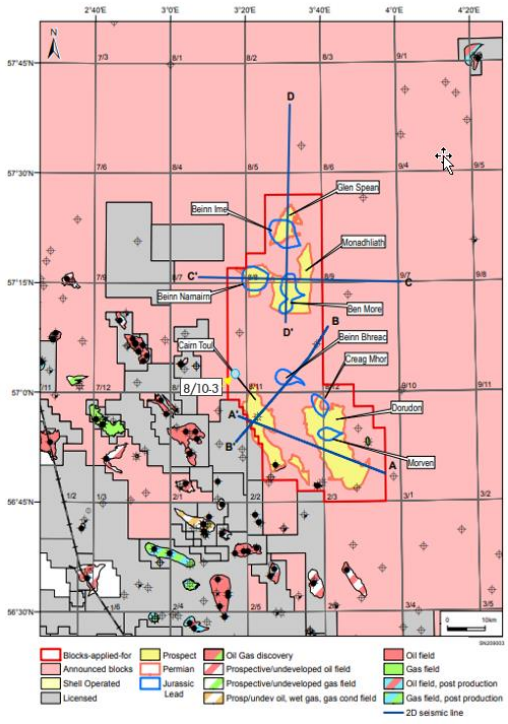


Figure 5 - Prospects overview map from application. All prospects are Permian and all leads are Upper Jurassic. Key well 8/10-3 highlighted.

3.4 Permian Play Evaluation

3.4.1 Drilled hole analysis

Drilled hole analysis was completed on thirteen pre-Zechstein wells from the Norwegian SNS. Charge was shown to be the critical risk with 10 of 13 penetration showing no evidence of charge. The Sørvestlandet high/PL862 focus area is relatively uncalibrated with the dry with shows 8/10-3 well most proximal. The well encountered a viable trap, seal and reservoir, but failed on account of charge with only tar stain shows encountered.

3.4.2 Permian Reservoir

Over 30 Norwegian wells that have encountered Permian stratigraphy, however, most are not representative of the section expected in PL862. Of those analogous to PL862, 8/10-3 penetrated 339 m of Rotliegend. The top 192 m consists of shale/shaly-sand (Fraserburgh Fm) overlying 154 m of well-developed sands (Auk Fm). The top 96 m of the Fraserburgh formation has seal potential – thick shale. Whilst the lower 96 m is sandier, yet very poor in terms of reservoir quality. Auk is an ok sand with suggested permeabilities in the range 2-4 mD. Porosity estimates are 12-13%. Auk reservoir play risk was 0.9 on account of the generally deep burial depths and the associated porosity uncertainty.

3.4.3 Paleozoic Charge

3.4.3.1 Source Rock Screening

Regional source rock screening was completed to review the direct evidence for the three source intervals hypothesised at license application: Upper Permian Kupferschiefer Fm, Upper Carboniferous Westphallian coals and Lower Carboniferous coals.

The Upper Permian contains the Kupferschiefer Fm with Type I/II oil potential interspersed with gas prone intervals. It is encountered by several NCS well including 2/1-7 and 2/4-17 to the W-SW of PL862. However, the Kupferschiefer unit is thin (avg. 3 m) and the patchy available data does not indicate a uniform good Upper Permian source rock.

Regarding Carboniferous, there are very few Carboniferous data points from wells offshore Norway. In the Norwegian SNS area, wells encountering Carboniferous strata are limited to Quad 2. In those wells, the Upper Carboniferous is missing, and the encountered strata of Lower Carboniferous has variable source rock potential.

A fluid inclusion study was carried out on key pre-Zechstein wells showing evidence of charge with the following conclusions: Rotliegend gas shows in 2/10-1 are likely associated with Low. Carb. Gas-prone clay/coal stringers identified in Quad 2 well 2/11-8 and 2/11-9; trace tarry oil found in 8/10-3 is most likely sourced from overlying Kupferschiefer and all other indications of pre-Zechstein charge are either contamination or low confidence. In addition, no Paleozoic source evidence was identified in the post-Zechstein discoveries.

3.4.3.1 Source Rock Interpretation

The candidate source rock basin identified to the N-NE of PL862 and hypothesised as Upper Carboniferous at the point of license application (Figure 6) was re-interpreted as most likely Lower Permian following further regional interpretation and well calibration in the license phase. Pre-Base Permian Unconformity (BPU) wells on the NCS tend to encounter sub-cropping Devonian or basement and interpretation from these wells to the license area favours placing the BPU at the base of the highlighted source rock basin. Generally, the Upper Carboniferous, known in the Netherlands and UK to be good to excellent source rock, is interpreted to be largely absent, eroded or never deposited in the NCS area and consequently pre-BPU strata in the PL862 area is most-likely Devonian or basement with the Carboniferous absent. Nevertheless, to account for interpretation uncertainty basin modelling assumed a Lower Carboniferous source present in the a-aforementioned basin. Figure 5 displays an E-W Top Rotliegend flattened section over the northern area of PL862 where yellow marks the zone of kitchen potential for Monadhliath.

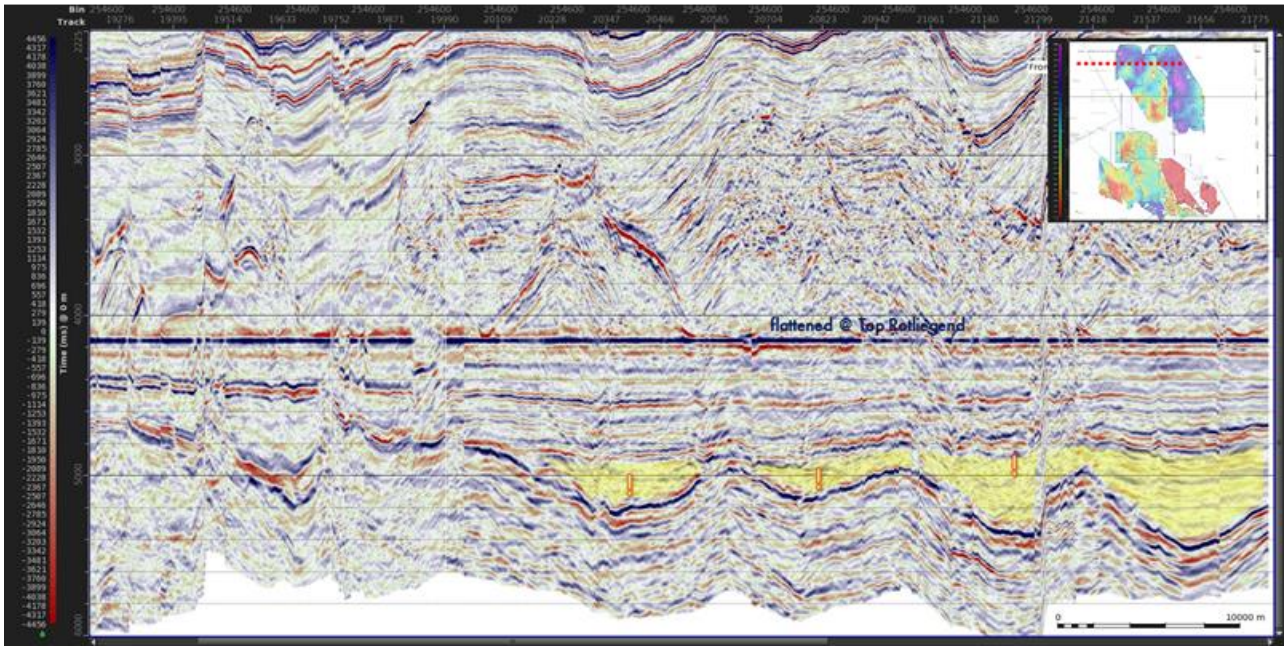


Figure 6 - Seismic line flattened at Top Rotliegend and depicting the identified rift basin to the N-NE of PL862(yellow).

3.4.3.2 Basin Modelling

A three-scenario modelling approach was undertaken using coal thickness of 20, 10 and 5 m, in analogue with the coal thickness of the Lower Carboniferous on the periphery of the Mid North Sea High. Two valid structures have been tested in the past: 8-10/3 (Megalodon) to the SW and 9/4-5 (Kogge) to the NE. Both wells were P&A as dry.

Regarding maturity, when the assumed source rock is present at the base of the source rock basin as mapped (Figure 6), it is mostly in the gas window. Regarding fill, model results show that thicker coal sequences (20 & 10 m) charge the dry 8/10-3 and 9/4-5 wells, whilst the 5m thick coal sequence charges 8/10-3, but not 9/4-5 or 8/10-3 (Figure 7). The modelling results therefore demonstrate a low source thickness threshold upon which Monadhliath is charged, but not the offset dry structure. The charge risk of the play was deemed relatively high and a play risk element of 0,65 was determined.

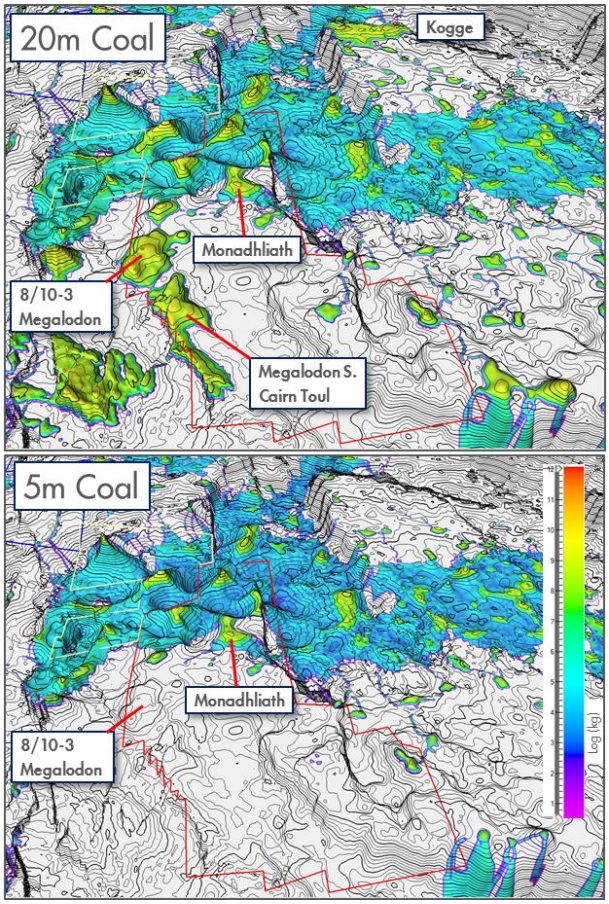


Figure 7 - Basin Model HC fill results at Top Auk reservoir for 20 m and 5 m of Lower Carboniferous coal. Colours: log(kg of HCs)

3.4.4 Other play elements

Neither structure, seal nor recovery were updated on a play risk basis. The Permian structures were considered robust, and the Zechstein Salt was considered highly competent as an ultimate top seal for any Upper Rotliegend reservoir. Recovery is considered on a prospect basis on account of depth, pressure and temperature.

3.5 Jurassic Play Evaluation

Several studies were undertaken to evaluate the potential of the Upper Jurassic play. The license contains several structural

closures at the Base Cretaceous Unconformity, and two Jurassic discoveries: Møyfrid (2/2-4) and Bumblebee (2/2-5) (Figure 5 and Figure 8). The following studies were completed:

- Seismic interpretation and calibration
- Rock physics modelling
- Offset well study
- Reservoir distribution mapping
- Basin Modelling
- Prospect and discovery evaluation

Regarding reservoir distribution, the rock properties of the Ula reservoir and background shales are found to be overlapping, which limits the potential to identify the Ula reservoir or DHIs from seismic. As a result, the distribution of Ula reservoir presence was predicted by gross interpretation of the salt pods and Triassic interpods.

The offset well study highlighted the variable reservoir distribution of the Ula formation, with Ula reservoir either absent or very thin on the platform and basin flanks. Where good Ula is encountered, charge is not prolific. Few shows are observed, and the 2/2-5 and 2/2-1 discoveries are interpreted as underfilled. Thereby indicating the play to be charge limited.

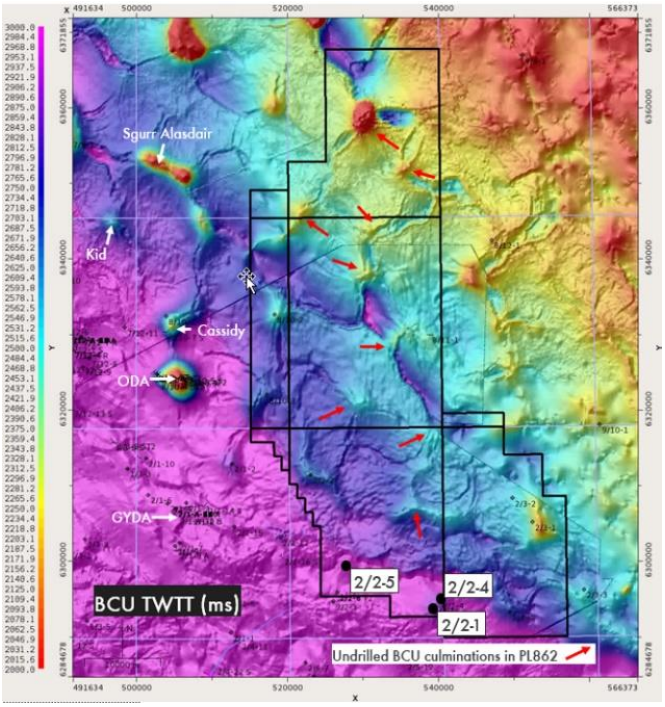


Figure 8- Base Cretaceous (TWTT-ms) structure map showing undrilled Jurassic structure (red arrows).

Basin modelling with an updated reservoir distribution showed that the in license discovered Jurassic volumes are likely supplied by a local, limited kitchen and not the Steinbit terrace to the west. There was no evidence of local charge potential on the platform and hence overall charge risk for this play was high. Model sensitivities indicated that an enhanced Heather source could charge the platform area, however, this was considered unlikely from a migration perspective with observed routes tortuous or counter to regional dip.

Finally, volumes estimated for the highest POS Jurassic lead, and the two Jurassic discoveries were completed at lead screening level. Neither were attractive enough to pursue further de-risking. Geological POS is considered low in relation to the volume opportunity and the economics are challenged by the long tie back distance to host.

4. Prospect Update Report

4.1 License application

Figure 9 - License application Lead and Prospect Map and Table 5 outline the location, volumes, POS and plays for the prospects and leads applied- for. As stated in section 1, the license evaluation focussed on maturation of the Permian Monadhliath Permian anchor prospect and play based evaluation of the Upper Jurassic. The outcome is that only Monadhliath was updated from a POS and volume perspective. All Permian prospects and the Upper Jurassic leads were downgraded to concept on account of revised of evaluation of Monadhliath and the Upper Jurassic play risk respectively.

Discovery/ Prospect/ Lead name [1]	D/ P/ L [2]	Case (Oil/ Gas/ Oil&Gas) [3]	Unrisked recoverable resources [4]						Probability of discovery [5] (0.00 - 1.00)	Resources in acreage applied for [%] [6] (0.0 - 100.0)	Reservoir		Nearest relevant infrastructure [8]	
			Oil [10^6Sm^3] (>0.00)			Gas [10^9Sm^3] (>0.00)					Litho-/ Chrono-stratigraphic level [7]	Reservoir depth [m MSL] (>0)	Name	Km (>0)
			Low (P90)	Base (Mean)	High (P10)	Low (P90)	Base (Mean)	High (P10)						
Monadhliath	P	Gas				13.00	109.40	247.00	0.12	100.0	U. Rotliegend Gp 2/ Permian	5300	Ekofisk	45
Cairn Toul	P	Gas				3.00	34.63	85.00	0.12	99.0	U. Rotliegend Gp 2/Permian	4950	Ekofisk	20
Glen Spean	P	Gas				2.00	12.77	28.00	0.12	100.0	U. Rotliegend Gp 2./Permian	5350	Ekofisk	50
Dorudon	P	Gas				10.00	78.46	182.00	0.12	100.0	U. Rotliegend Gp 2./Permian	4190	Ekofisk	40
Ben More	L	Oil	3.09	10.75	20.48					100.0	Ula Fm / Upper Jurassic	2700	Ula	45
Beinn Ime	L	Oil	6.09	18.84	34.22					100.0	Ula Fm / Upper Jurassic	2200	Ula	57
Beinn Narnairn	L	Oil	6.33	19.90	36.39					100.0	Ula Fm / Upper Jurassic	2359	Ula	43
Beinn Bhreac	L	Oil								100.0	Ula Fm / Upper Jurassic	2717	Ula	29
Creag Mhor	L	Oil								100.0	Ula Fm / Upper Jurassic	2776	Ula	35
Morven	L	Oil								100.0	Ula Fm / Upper Jurassic	2885	Ula	36

Table 5 - Leads and prospect Volumes and POS from application document

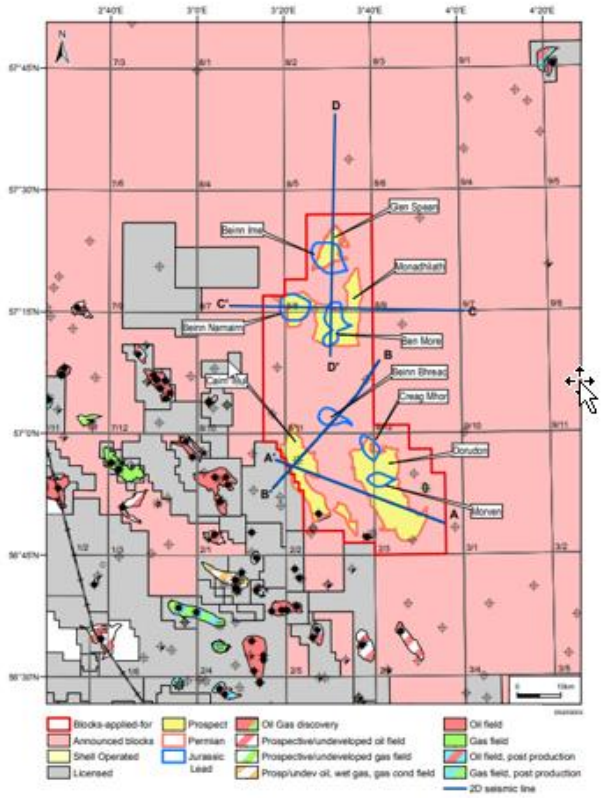


Figure 9 - License application Lead and Prospect Map

4.2 Monadhliath Summary

Monadhliath was the anchor prospect at 12 % POS, 110 BCM Pmean Gas recoverable at the time of application. Following license evaluation, the Pmean and POS are updated to 5.3 BCM and 5% respectively.

4.2.1 Charge

As discussed previously, basin modelling indicated either a lack of source or low volume kitchen. In addition, post modelling interpretation reduced the structural relief of Monadhliath. This was determined to further increase charge risk, as lesser volumes were required to spill into the offset dry structures. In conclusion, a prospect charge POS (considering both SR presence and migration) of 0,6 was determined. The combined play and prospect POS is therefore 0,4.

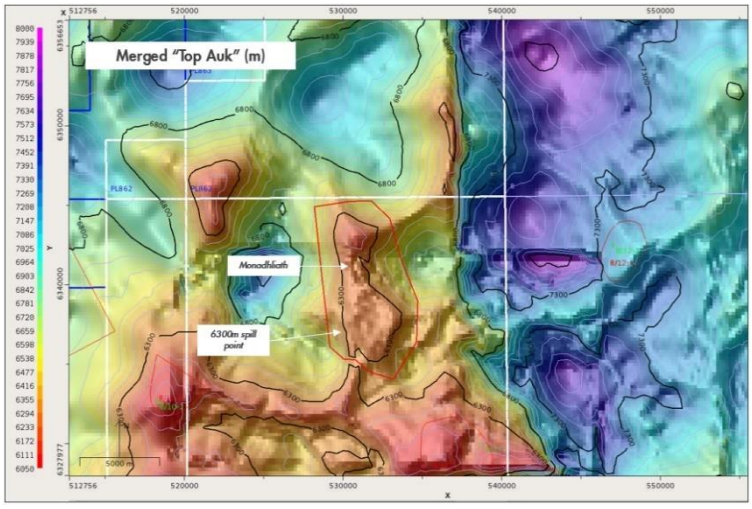


Figure 10 - Top Auk reservoir (m) Monadhliath

4.2.2 Structure

Following seismic reprocessing and update to the time-depth model, the structural relief of Monadhliath reduced to 200 m from 560 m and the top reservoir depth, Top Auk, is deepened by 800 m. The basis for increased depth was the general deepening observed from more advanced velocity modelling of PSDM processing and interpretation deepening from the observation that the non-reservoir Fraserburgh formation facies observed at 8/10-3 are thickening towards Monadhliath. In addition, the faults interpreted at application and used to deepen the column

were not clearly identified and considered very unlikely to seal on account of throw and Fraserburgh Fm lithology. These faults were thus removed as sealing elements from the column height range.

The structure/closure chance factor was 0,6 based on the low structural relief being within PSDM depth uncertainty range. Figure 10 shows the top structure map for the Auk reservoir and Figure 11 displays a key seismic traverse with annotation.

4.2.1 Reservoir

The Auk formation is considered likely present from GDE understanding and the continuous soft loop observed on seismic. Auk reservoir porosity was reduced to 11 p.u. compared to 15.5 p.u Pmean at license application on account of the increased depth. The reservoir presence risk, accounting for the potential that only Fraserburgh waste zone is present within structure, was 0,90. The combined Play and Prospect chance factor is therefore 0,8.

4.2.2 Seal

A thick Zechstein salt ultimate top seal is competent and highly likely. However, the underlying Fraserburgh formation waste zone identified is a failure scenario in a charge constrained case. The Seal chance factor was evaluated as 0,5 on account of this.

4.2.3 Recovery

The very deep burial depths (>6000 m) and low structural relief (~200 m) pertain to low hydrocarbon saturation and likely tight reservoir. The recovery chance factor was 0,5.

5. Technical Evaluations

No development planning was undertaking for the Permian Monadhliath. On account of the low volume and high geological risk this opportunity was not considered an attractive drill candidate and it was apparent that no development realisation would result a commercially viable or attractive outcome.

Development and economic screening studies were undertaken on the discovered resources at 2/2-1 (Møyfrid), 2/2-5 (Bumblebee) and 2/2-2 (Desmond). Desmond is an Oligocene gas discovery; Bumblebee is Upper Jurassic discovery and Møyfrid is both an Oligocene gas discovery and Jurassic oil discovery. Of all these discoveries, the volume potential is low, and all considered development scenarios of base case volumes were marginal to non-economic. An upside subsurface interpretation at Møyfrid Upper Jurassic (~30 mmbbls) was additionally considered. In that case larger Upper Jurassic volumes are produced with the Oligocene gas providing production support. This scenario is economically viable but low POS. The tie back hosts were Ekofisk or Ula, in each scenario.

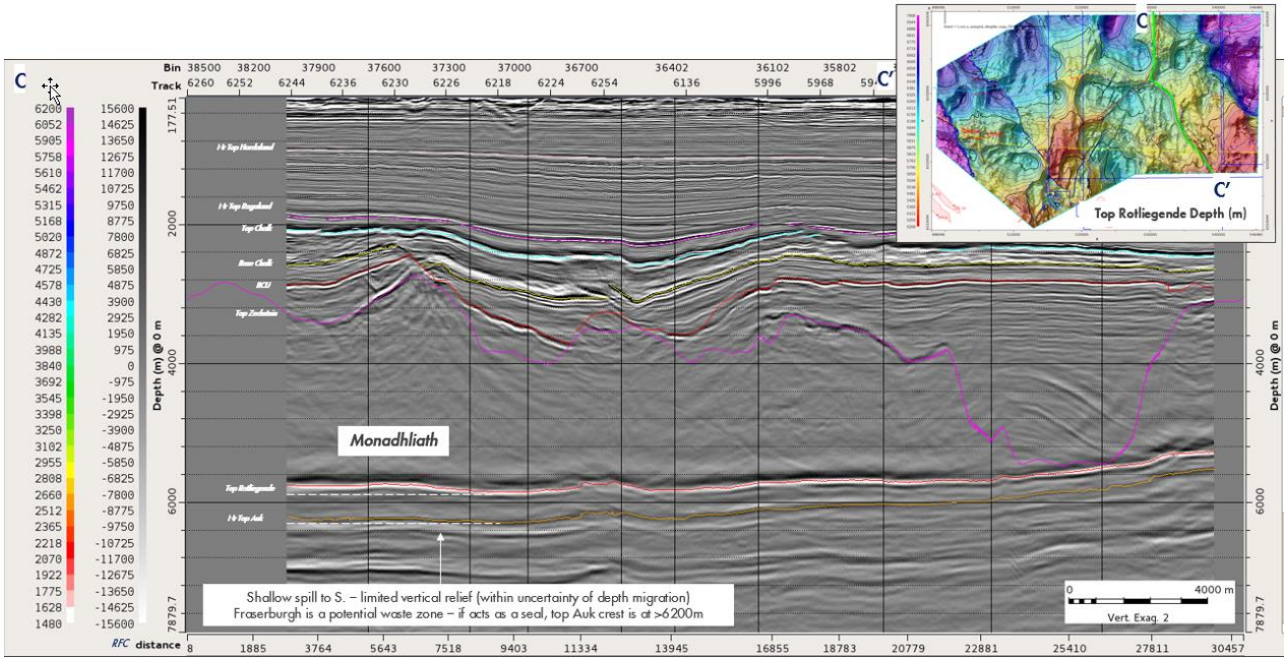


Figure 11 - Key seismic traverse from Monadhliath south. Showing the low structural relief.

6. Conclusions

The evaluation of the license is complete with the following conclusions:

- Charge into the licence prospectivity is considered very unlikely for both the Permian and Jurassic prospectivity.

- The Paleozoic charge model has evolved during the license evaluation and is considered high risk.
    - A seismic stratigraphy wedge to the N-NE of the license and dated as Upper Carboniferous at license application is now considered lower Permian. Thus, inferring poor to no charge potential. Additionally, there are no direct indications of carboniferous charge in the area of PL862 and the presence of any Carboniferous strata was doubtful.

- Seismic reprocessing to PSDM significantly reduced the Monadhliath prospect size. The structural relief was much reduced, the reservoir deepened and the fault bounding the structure and deepening the column (interpretation at application) was not considered a viable sealing element as offset well calibration of the Fraserburgh formation, inferred a very low likelihood of fault seal.

- The Rotliegend reservoir model changed. Offset well analysis indicated that the Upper Rotliegend, previously considered a reservoir, was likely a waste zone and consequently posed a seal risk to the more attractive Auk reservoir and reservoir risk in light of the reduced structural relief.

- The Jurassic evaluation concluded that the potential to charge the 4-way dip closures on the Sorvestlandet high was very low. The proximal discoveries, 2/2-1 and 2/2-5 were interpreted as underfilled. Thus, inferring that the platform bounding basin is charge constrained. Migration from the basin proper, Tor Area, was considered highly unlikely.

All work commitments on the licence have been fulfilled, and a drill-worthy prospect has not been identified. Therefore, the partnership unanimously recommends the relinquishment of PL862.

6.1 Appendix A

Table 5: Prospect data (Enclose map)

Block	8/8	Prospect name	Monadhliath	Discovery/Prosp/Lead	Prospect	Prosp ID (or New!)		NPD approved (Y/N)	
Play name		New Play (Y/N)		Outside play (Y/N)					
Oil, Gas or O&G case:	Gas	Reported by company	A/S Norske Shell	Reference document	PL862 Relinquishment Report			Assessment year	2020
This is case no.:	1 of 1	Structural element	Sørvestlandet High	Type of trap	4-way closure	Water depth [m MSL] (>0)	65	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)					0.02	0.00	8.76	19.00
	Gas [10^9 Sm^3] (>0.00)	0.98	0.07	8.90	19.30				
Recoverable resources	Oil [10^6 Sm^3] (>0.00)					0.01	0.00	0.08	0.20
	Gas [10^9 Sm^3] (>0.00)	0.60	0.04	5.30	11.60				
Reservoir Chrono (from)	Upper Permian	Reservoir litho (from)	U. Rotliegend Gp 2	Source Rock, chrono primary	Lower Carbonifer	Source Rock, litho primary	Namurian/Visean	Seal, Chrono	Upper Permian
Reservoir Chrono (to)	Upper Permian	Reservoir litho (to)	U. Rotliegend Gp 2	Source Rock, chrono secondary	Upper Permian	Source Rock, litho secondary	Kuperschiefer Fm	Seal, Litho	Rotliegend Group
Probability [fraction]									
Total (oil + gas + oil & gas case) (0.00-1.00)		Oil case (0.00-1.00)	0.00	Gas case (0.00-1.00)	1.00	Oil & Gas case (0.00-1.00)	0.00		
Reservoir (P1) (0.00-1.00)	0.40	Trap (P2) (0.00-1.00)	0.50	Charge (P3) (0.00-1.00)	0.40	Retention (P4) (0.00-1.00)	0.50		
Parametres:	Low (P90)	Base	High (P10)	*Base parameters are mean. Reservoir (P1) has been modified to account for risk of no recovery (P1 = chance factor reservoir x chance factor recovery). The reservoir and recovery chance factors pre-modification are 0,8 and 0,5 respectively.*					
Depth to top of prospect [m MSL] (> 0)		6100							
Area of closure [km^2] (> 0.0)		13.5							
Reservoir thickness [m] (> 0)	275	300	325						
HC column in prospect [m] (> 0)	6100	6243	6285						
Gross rock vol. [10^9 m^3] (> 0.000)	40.000	345.000	740.000						
Net / Gross [fraction] (0.00-1.00)	0.75	0.80	0.85						
Porosity [fraction] (0.00-1.00)	0.08	0.12	0.14						
Permeability [mD] (> 0.0)	2.0		4.0						
Water Saturation [fraction] (0.00-1.00)	0.22	0.27	0.33						
Bg [Rm3/Sm3] (< 1.0000)	0.0023	0.0026	0.0030						
1/Bo [Sm3/Rm3] (< 1.00)									
GOR, free gas [Sm^3/Sm^3] (> 0)	54050	58823	64516						
GOR, oil [Sm^3/Sm^3] (> 0)									
Recov. factor, oil main phase [fraction] (0.00-1.00)									
Recov. factor, gas ass. phase [fraction] (0.00-1.00)									
Recov. factor, gas main phase [fraction] (0.00-1.00)	0.50	0.60	0.70						
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)	0.50	0.60	0.70	For NPD use:					
Temperature, top res [°C] (>0)	190			Innrapp. av geolog-init:	NPD will insert value	Registrert - init:	NPD will insert value	Kart oppdatert	NPD will insert value
Pressure, top res [bar] (>0)	765			Dato:	NPD will insert value	Registrert Dato:	NPD will insert value	Kart dato	NPD will insert value
Cut off criteria for N/G calculation	1.	2.	3.					Kart nr	NPD will insert value