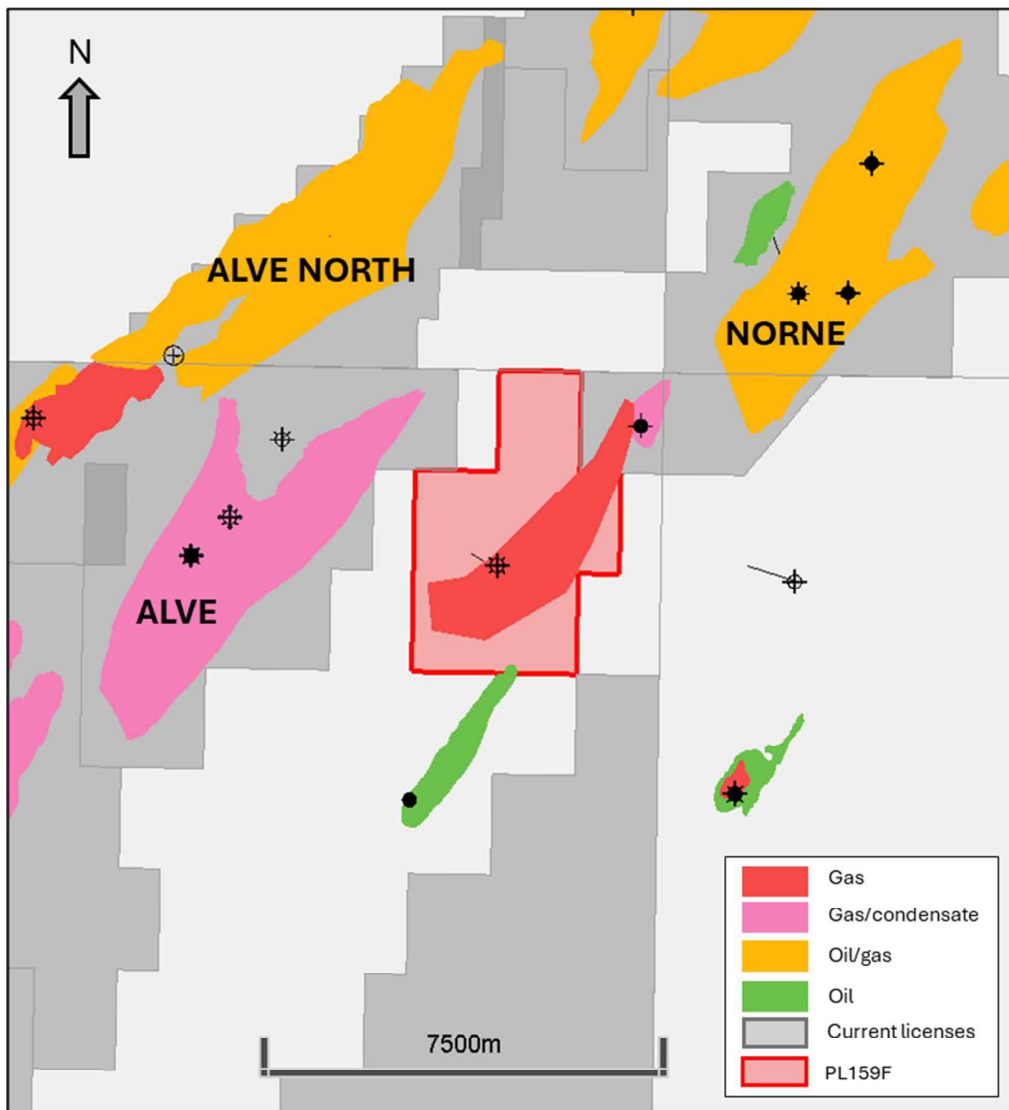


PL159F

Status Report for Surrender



Contents

1	License History	5
2	Database	8
2.1	Seismic Data.....	8
2.2	Well Data.....	9
3	Summary of Geological and geophysical Studies.....	11
4	Prospect Updates	14
5	Technical Evaluations	23
6	Conclusions	24

List of Figures

1.1 PL159F license location and prospectivity.....	6
1.2 Common seismic database.....	8
1.3 Common well database.....	9
4.1 Initial pre-drill outlines of Mim and Mim North.....	14
4.2 Initial outline of Osprey.....	20
4.3 Re-evaluated final prospect outline for Osprey.....	21
5.1 Osprey development scenario.....	23

List of Tables

1.1	Licencees with shares.....	5
1.2	License meetings.....	7
2.1	Common seismic database.....	8
2.2	Common well database.....	10
3.1	Studies.....	12
4.1	Overview of initial prospect volumetrics and risk.....	14
4.2	Mim pre-well versus post-well parameters for volume calculation.....	15
4.3	Mim Morth pre-well versus post-well parameters for volume calculation.....	16
4.4	Mim prospect data.....	17
4.5	Mim North prospect data.....	18
4.6	Osprey initial versus final parameters for volume calculation.....	20
4.7	Osprey discovery data.....	22

1 Licence History

PL159F was carved out of PL159B. Application for carve out of a specific area of PL159B was sent to MPE February 2nd, 2017. The carve-out proposal was motivated by the partnerships' aim to adjust equity in part of the licence with the ongoing and future exploration activity for Mim and Mim North prospects, without interfering with the development of the more mature parts of the licence, namely Alve. The resulting PL159F licence was awarded May 22nd, 2017, keeping the same operator, partnership and licence commitments as in PL159B.

The licence was located at Dønna Terrace on the Revfallet Fault Complex in the Norwegian Sea, covering an area of 15.5 km² in block 6507/3. Statoil Petroleum AS was the operator with 85 % share, while Dong E&P Norge AS was partner with 15 % share. The latest partnership of the licence consisted of Orlen Upstream Norway AS as operator with 60 % share and Wellesley Petroleum AS as partner with 40 % share. Table 1.1 lists the full history of licencees with interests.

The 6507/3-12 exploration well, targeting the Mim prospect, was spudded February 2nd, 2017. The application for carving out PL159F was sent prior to spudding the well, but since the well spudded prior to the official PL159F award date, it was drilled by the PL159B license. The well completed February 28th, 2017.

Table 1.1 Licencees with shares

Date valid from	Date valid to	Company	Share
26.09.2024	31.12.2024	ORLEN Upstream Norway AS	60.00 %
		Wellesley Petroleum AS	40.00 %
01.04.2022	25.09.2024	PGNiG Upstream Norway AS	60.00 %
		Wellesley Petroleum AS	40.00 %
30.09.2021	31.03.2022	Equinor Energy AS	52.50 %
		Wellesley Petroleum AS	40.00 %
		PGNiG Upstream Norway AS	7.50 %
16.05.2018	29.09.2021	Equinor Energy AS	52.50 %
		Wellesley Petroleum AS	40.00 %
		INEOS E&P Norge AS	7.50 %
10.10.2017	15.05.2018	Statoil Petroleum AS	52.50 %
		Wellesley Petroleum AS	40.00 %
		INEOS E&P Norge AS	7.50 %
30.06.2017	09.10.2017	Statoil Petroleum AS	52.50 %
		Wellesley Petroleum AS	40.00 %
		DONG E&P Norge AS	7.50 %
22.05.2017	29.06.2017	Statoil Petroleum AS	85.00 %
		DONG E&P Norge AS	15.00 %

Licence prospectivity

The original prospectivity in the licence was the Mim and Mim North prospects with primary target in the Fangst Group, and secondary target in Båt Group, if discovery in Fangst. Mim and Mim North, are Middle Jurassic rotated fault blocks situated geographically and depth-wise between Alve and Gjøk, and were the main targets of the exploration well 6507/3-12. The well was spudded on February 3, 2017 and drilled to TD at 3451 m in the Early Jurassic Tofte Formation. A gas bearing Cretaceous sandstone belonging to the Lysing Formation was penetrated from 2614.5 m to a gas-down-to contact at 2621 m. The Lysing sandstone had very good permeability and 110 bar overpressure. This discovery was named Osprey. The Fangst group of the Mim structure was water bearing with residual hydrocarbons only. The Båt Group was not tested as a result of this, and no sidetrack into Mim North was performed. A geological side-track, 6507/3-12A, had the objective of testing the Osprey discovery in a down-flank position. The casing got stuck before reaching target. It was not possible to move the casing up or down and the well was plugged and abandoned, without reaching target. No cores were cut, and no fluid sample was taken.

As the exploration well results proved Mim was water saturated, and post well evaluation of remaining up-flank potential in Mim, and Mim North resulted in reduced volumes and increased risk, these prospects were not considered drill targets any longer. The Osprey discovery hence became the main object in the Licence. Fig. 1.1 shows the licence location and prospectivity.

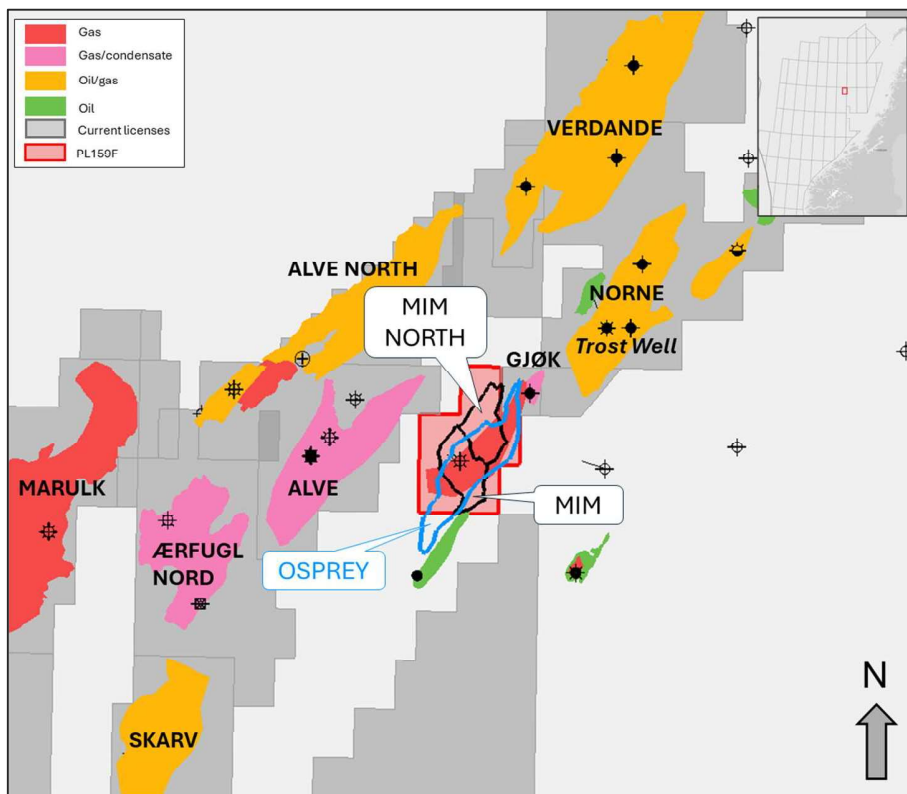


Fig. 1.1 PL159 F licence location and prospectivity

Work commitments

As the PL159 F licence was carved out of the producing Alve licence, PL159 B, where all work commitments were fulfilled, there was no work commitments in PL159 F. The licence expiry date was March 3, 2029.

Licence meetings

Table 1.2 lists all licence meetings held for the PL159 F licence.

Table 1.2 Licence meetings

Date	Licence meeting
17 th April 2024	EC work meeting
21 st November 2023	ECMC meeting
15 th November 2022	ECMC meeting
16 th September 2021	MC work meeting
12 th April 2021	EC work meeting
28 th October 2020	ECMC meeting
1 st November 2019	ECMC meeting
21 st November 2018	ECMC meeting
6 th September 2018	EC work meeting
20 th March 2018	EC core viewing of 6507/3-12 well
6 th November 2017	ECMC meeting
24 th August 2017	EC work meeting
2 nd May 2017	EC work meeting

Reasons for licence surrender

The recommendation to relinquish is based on the technical and financial evaluation of the prospectivity in the license, concluding that there is limited economic potential in Osprey and a high risk of failure for the development concept. Mim and Mim North resource potential is limited, and no other drillable exploration targets have been identified in the license. An unanimous decision to relinquish the license was made 30th September 2024.

2 Licence Database

2.1 Seismic data

The common seismic database consists of two 3D seismic surveys and one site survey showed in Fig. 2.1 and listed in Table 2.1. PGS18M01 was the main seismic survey used for prospect evaluation.

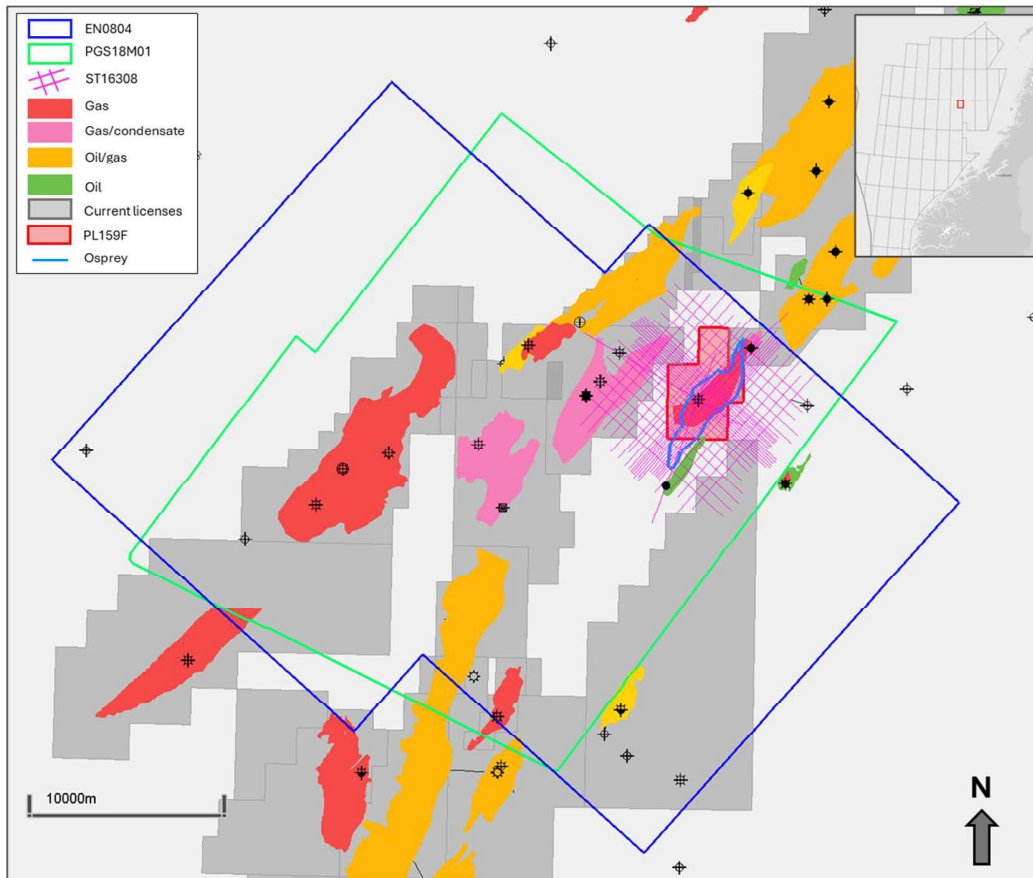


Fig. 2.1 Common seismic database

Table 2.1 Common seismic database

Seismic survey	NPDID	Type	Status	Year	Company
PGS18M01*		3D	Licenced	2018	PGS Geophysical AS
PGS14002**	7993	3D	Licenced	2014	PGS Geophysical AS
MC3D-HVG2011**	7379	3D	Public	2011	Multiklient Invest AS
MC3D-HVG2012**	7616	3D	Public	2012	Multiklient Invest AS
MC3D-HVG2013**	7900	3D	Public	2013	Multiklient Invest AS
EN0804	4551	3D	Public – Full Offset	2008	Eni Norge AS
ST16308	8374	2D	Licenced	2016	Statoil Petroleum AS

*merge consisting of surveys**

2.2 Well data

Well data in the common database is showed in Fig. 2.2 and listed in Table 2.2.

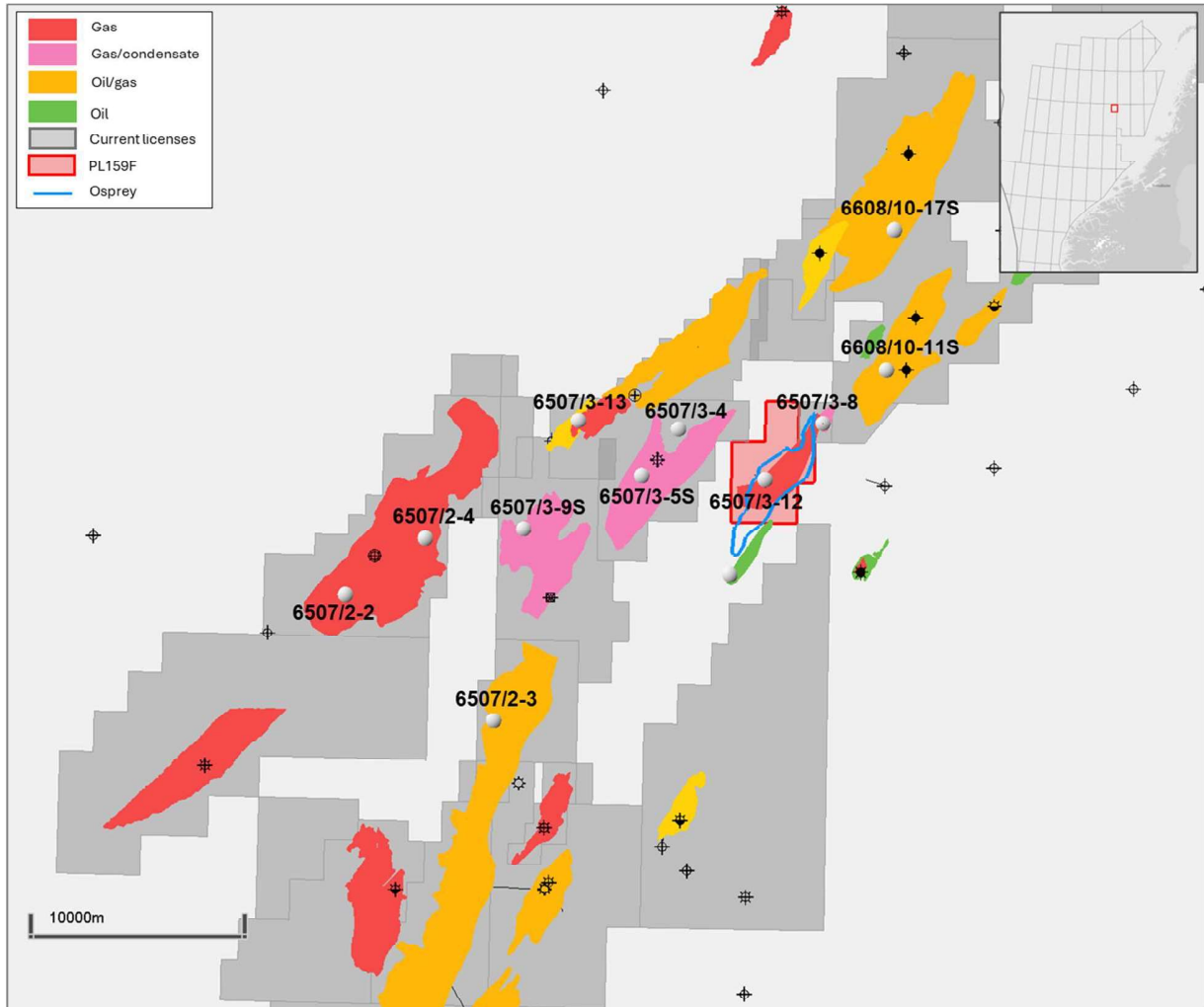


Fig. 2.2 Common well database

Table 2.2 Common well database

Well	Name	NPDID	Completion year	TD	Result
6507/2-2	Marulk	1840	1992	Åre Fm., Early Jurassic	Gas/condensate in Cromer Knoll Gp.
6507/2-3		2299	1994	Spekk Fm., Late Jurassic	Oil shows in Cromer Knoll Gp.
6507/2-4	Marulk	5685	2008	Lyr Fm., Late Cretaceous	Gas/condensate in Cromer Knoll Gp.
6507/3-4	Alve	4905	2004	Åre Fm., Early Jurassic	Gas shows in Fangst Gp.
6507/3-5 S		5307	2008	Åre Fm., Early Jurassic	Gas/condensate in Fangst Gp. and Båt Gp.
6507/3-8	Andvare	6258	2011	Tilje Fm., Early Jurassic	Oil/gas in Fangst Gp. and Båt Gp.
6507/3-9 S	Ærfugl Nord	6951	2012	Lange Fm., Early Cretaceous	Gas in Cromer Knoll Gp.
6507/3-10	Klara	7212	2013	Åre Fm., Early Jurassic	Oil in Fangst Gp. And Båt Gp.
6507/3-12	Mim/Osprey	8097	2017	Tofte Fm., Early Jurassic	Gas in Cromer Knoll Gp.
6507/3-13	Black Vulture	8720	2019	Lyr Fm., Late Cretaceous	Oil/gas in Cromer Knoll Gp.
6608/10-11S	Trost	5386	2006	Tilje Fm., Early Jurassic	Gas in Fangst Gp.
6608/10-17S	Verdande	8065	2017	Spekk Fm., Early Cretaceous	Oil/gas in Cromer Knoll Gp.

3 Results of Geological and Geophysical Studies

The data from the 6507/3-12 exploration well targeting the Mim prospect, was key data for evaluating the license prospectivity. Mim was water bearing with residual hydrocarbons only. Gas was discovered in Lysing Fm, and this discovery was named Osprey.

Table 3.1 lists the studies that was carried out for the re-evaluation of Mim and Mim North, and the evaluation of Osprey. For Mim and Mim North studies aimed to evaluate remaining potential after incorporating the well result and data from 6507/3-12. For Osprey the main challenge was seismic resolution and mapping the extent of the prospect.

Mim and Mim North:

Residual hydrocarbons (HC) were seen in core photos and cuttings from Fangst Group, and hydrocarbon core scanning (HCS) supported the presence of residual HC. The gas in Fangst reservoir shows "end oil window maturity" and Type II/III origin, and the same is seen for Lysing Fm. Geochemical data from gas and cuttings samples support co-genetic generation of the HC in Lysing and Fangst Group (i.e. the same HC system). The suggested charge history is early filling with lower mature HC and biodegradation. Later (or possibly continuous) more mature HC of mainly gas have replaced the liquid phase. This indicates that the structure may have been HC-filled at some point, and as the reservoir today is water wet, the petroleum must subsequently have been lost due to leakage/trap failure.

A biostratigraphy study was performed to get a consistent chrono-, litho- and biostratigraphic framework. TD of the well is within the Toarcian aged Ror Formation. The interval was originally identified as Ile Formation on completion logs, but age assignment and comparison with nearby offset wells suggest the Ror Formation has been penetrated. Within this interval the thickness of the Ile Formation is now more in-line with nearby wells and is confidently correlated with 6507/3-8. There is an overall high confidence on the biostratigraphic ages (core and ditch samples), and Not, Ile and Ror Fm are clearly identified.

The Mim seismic anomaly is defined as class II with partly conformance with depth. The well tie and models show a very good match to the real seismic. It is observed that the Mim anomaly is at the same location as anomalies seen in the overburden (anomalous cap rock) and below (Åre). The combination of these elements is the most likely explanation to the brightening effect seen at Top Garn, and not related to HC saturation.

Post-well prospect evaluation was performed for Mim and Mim North. An in-house petrophysical evaluation was performed on a selected set of key wells in order to estimate the petrophysical properties for Fangst Gp, to be applied in volume estimation. Post-well volume estimates were reduced compared to pre-drill estimates for both prospects.

Based on the conclusions regarding both the anomaly and the trap failure, and the post-well volume estimate, Mim and Mim North were no longer considered attractive prospects, and the focus for further license work was on the evaluation of Osprey.

Table 3.1 Studies

Study	Comments	Outcome
Geochemistry	Including hydrocarbon core scanning (HCS)	HCS supports the presence of residual hydrocarbons in Fangst Group. From Mim, the charge history derived from the geochemistry study suggests that petroleum is lost due to leakage and only residual hydrocarbons are left in the reservoir today.
Biostratigraphy	Consistent chrono-, litho- and biostratigraphic framework	Overall high confidence on the biostratigraphic ages. Not, Ile and Ror Fm clearly identified.
PVT		PVT data indicate that the gas/condensate in the Lysing sand is saturated and part of the 2-phase system and could be in equilibrium with an oil.
Conventional core analysis	Sedimentological core description and interpretation for 6507/3-12 (Mim – 82 metres core in Garn-Not-Ile)	Porosity calibrated to core data in Jurassic.
Seismic acquisition	Acquisition of PGS18M01	Improved data quality obtained for Cretaceous interval. Osprey was re-mapped on this dataset.
Geophysical study	Seismic modelling, rock physics, fluid substitution, thickness estimation and AVO analysis	The Mim and Mim North anomalies seen at Top Garn is most likely explained by anomalies in the overburden (anomalous cap rock), and not related to HC saturation. For Osprey the fluid effect is seen as an anomaly in far stack data. Thickness range potential is limited due to the low amplitude strength of the anomaly, and was reduced compared to initial evaluation. Amplitude/AVO study led to redefinition of the prospect outline, and the GWC range.
Prospect assessment	Full prospect evaluation including petrophysical evaluation, volume calculation, development solution evaluation, economical evaluation and risking.	Mim and Mim North was not considered attractive drill targets after re-evaluation based on 6507/3-12 well results. Mim was proven water filled by the 6507/3-12 well, most likely due to trap failure. Remaining up-dip volumes are limited, and risk is increased. Mim North post-well volumes decreased compared to pre-well, and risk increased. Osprey became the main prospect of the license. Final prospect evaluation of Osprey resulted in lower volumes than initial post-well evaluation, and the economic potential is limited.

Osprey:

The main challenge for Osprey was the seismic mapping and interpretation of the seismic response. At well location the Lysing formation sand is 6.5 m, and hence well below seismic resolution. Mapping the extent of trapped hydrocarbons and estimating the thickness of the reservoir outside well location was the main focus for geophysical studies performed for Osprey.

The PGS18M01 seismic dataset was acquired and included in the common database. Processing performed in this dataset was aiming for improved quality and signal to noise in the Cretaceous section, compared to the underlying HVG2012 survey. This survey was applied for mapping and geophysical studies of Osprey. A seismic anomaly is seen for Osprey, and seismic modelling supports that this is likely a fluid response of the gas saturated reservoir seen on Top Lysing reflector. It is expected that a gas saturated Lysing will produce a seismic anomaly, even for a thin sand, like in Osprey. Hence, Osprey areal extent is defined based on the anomaly. Thickness modelling led to the conclusion that the anomaly strength of Osprey is restricted due to the low thickness, and that a limited thickness range is expected for the entire Osprey trap.

No core or cuttings were taken from the Lysing Fm. The only well data acquired were fluid samples, pressure points and logging while drilling and wireline logs. An in-house petrophysical evaluation has been performed on a selected set of key wells in order to estimate the petrophysical properties for the Lysing reservoir.

Geochemistry study concluded that the wet gas in Lysing is of thermogenic origin, mainly from a Type II/III kerogen. It is suggested that the gas is sourced from shales, probably Spekk and/or Melke Fm, which are deeper than at the well location. Geochemical data from gas and cuttings samples support that the Lysing gas is from the same HC system as the residual HC in Fangst Gp. The suggested charge history is early filling with lower mature HC and heavy biodegradation. Later (or possibly continuous) more mature HC of mainly gas have been added and replaced the liquid phase.

PVT data indicate that the gas/condensate in the Lysing sand is saturated and part of a two-phase system and could be in equilibrium with an oil.

4 Prospect Update Report

The prospectivity in the license is illustrated in Fig. 1.1. Pre-drill volumes and risk for Mim and Mim North are listed in Table 4.1, along with initial post-well numbers for Osprey. Prospect evaluations for each are described below, and final volumes and risks are listed in the prospect/discovery forms in Tables 4.4, 4.5 and 4.7.

Table 4.1 Overview of initial prospect volumetrics and risk

Prospect	Inplace Mean MSm3 o.e.	Recoverable P90 MSm3 o.e.	Recoverable Mean MSm3 o.e.	Recoverable P10 MSm3 o.e.	CoS Pg/Pg+DHI %
Mim	3,54	0,50	1,62	2,8	72/82
Mim North	2,71	0,44	0,28	2,39	43/39
Osprey	2,78	1,07	2,43	3,68	100

Mim & Mim North

Mim and Mim North are interpreted as well defined rotated three-way fault closures directly west of the Revfallet fault complex, in a known prolific province with known reservoirs. Both Mim and Mim North are bounded by faults with possible spill route up-flank towards the shallower Gjøk discovery (6507/3-8), as illustrated in Fig. 4.1. The sealing capability of these faults were identified as a risk for the prospects. The main risk was charge. Reservoir sands were expected to be Garn, Not and Ile Formations in the Fangst Group, and Tilje in Båt Group. The expected volume potential was limited, and the hydrocarbon phase was uncertain. The fluid models were pure oil, pure gas or a gas cap over an oil leg, associated with the following probabilities: oil 25 %, gas 25 %, and multi-case 50 %. Seismic anomalies were seen in both prospects, but they were not significant enough to be able to specify expected fluid phase based on these.

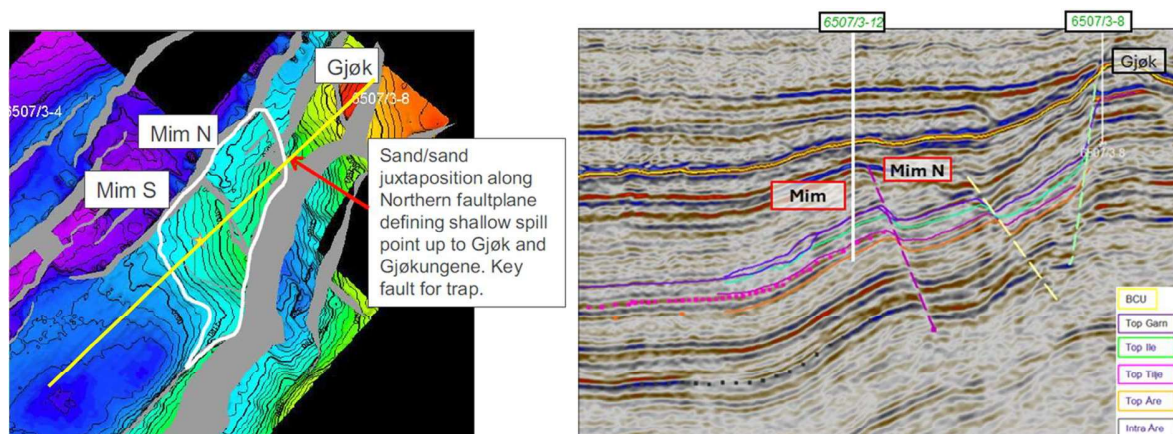


Fig. 4.1 Initial pre-well outlines of Mim and Mim North displayed on Top Garn map. Seismic line through Mim, Mim North and Gjøk.

Pre-drill spill points were interpreted at 3520 m for both Mim and Mim North. Apexes were interpreted at 3150 m for Mim and 3170 m for Mim North.

The main objectives of well 6507/3-12 were to prove economic volumes in Mim and test the Mim North with an optional side track to ensure an economic joint development as a tie-back to the Norne FPSO. The Middle Jurassic Garn/Not and Ile Formations of Fangst Group were the main target. Båt Group was secondary target. The well location was within the observed anomaly in Mim.

The Middle Jurassic target was water bearing and a shallow TD (not testing the Lower Jurassic Båt Group) was set. A 30 m gross water bearing sandstone of the middle Jurassic Garn/Not Fm was encountered. The reservoir has moderate to good quality and came in 18 m shallower than prognosed. Top Ile Fm came in 36 m shallower than prognosed and consists of a 65 m gross water bearing sandstone of moderate to good quality. Shows throughout drilling and coring, as well as observations of oil inclusions in siderite cement, indicates that the structure may have been HC-filled at some point and is now water bearing due to trap failure.

Post well evaluation of Mim was performed to evaluate the possible volume potential up-flank of the well, incorporating the well results. A post-well re-evaluation was performed for Mim North to incorporate the data from the exploration well. Pre- versus post-well input parameters for volume calculation are listed in Table 4.2 for Mim, and in 4.3 for Mim North. The changes reflect updating the reservoir thickness, depth and properties based on the well data, in addition to a re-evaluation of HC column height and HC phase scenarios, excluding a pure gas case.

Table 4.2 Mim pre-well versus post-well parameters for volume calculation

Parameter	Pre-well			Post-well		
	P90	Mean	P10	P90	Mean	P10
Depth of crest [m]	3150	3150	3150	3132	3132	3132
Thickness [m]	22	32	43	19	24	29
NTG (frac)	0,83	0,91	0,97	0,88	0,93	0,97
Porosity (frac)	0,16	0,18	0,21	0,18	0,19	0,21
GOC [m]	3279	3330	3381			
HCWC [m]	3282	3363	3407			
SG (frac)	0,80	0,87	0,93	0,80	0,87	0,93
SO (frac)	0,73	0,78	0,83	0,73	0,78	0,83
Column height [m]				109	126	144
Gas fraction of c.h.				0,36	0,5	0,64
Spill point depth [m]	3520	3520	3520	3492	3492	3492

Table 4.3 Mim North pre-well versus post-well parameters for volume calculation

Parameter	Pre-well			Post-well		
	P90	Mean	P10	P90	Mean	P10
Depth of crest [m]	3170	3170	3170	3152	3152	3152
Thickness [m]	22	32	43	19	24	29
NTG (frac)	0,83	0,91	0,97	0,88	0,93	0,98
Porosity (frac)	0,16	0,18	0,21	0,18	0,19	0,21
GOC [m]	3292	3340	3388			
HCWC [m]	3274	3351	3413			
SG (frac)	0,80	0,87	0,93	0,80	0,87	0,93
SO (frac)	0,73	0,78	0,83	0,73	0,78	0,83
Column height [m]				84	102	122
Gas fraction of c.h.				0,36	0,5	0,64
Spill point depth [m]	3520	3520	3520	3492	3492	3492

In post-well risking the probability on bounding fault has been reduced from 0,9 to 0,3 for Mim, as a consequence of the apparent retention failure. Charge probability is increased from 0,8 to 1. For trap and reservoir no changes have been made compared to pre-drill assessment and the probability remains at 1. Resulting COS for Mim is 30 %.

For Mim North, the bounding fault is not dependant on the one in Mim, and retention probability is lowered from 0,6 to 0,5. Post-well charge, trap, and reservoir probabilities remain unchanged at 0,8, 0,9 and 1, respectively. Resulting COS for Mim North is 36 %.

As oil shows were detected in Mim, a pure gas case is unlikely both for Mim and Mim North. In the post-well evaluation a pure oil case, and a multiphase case was assumed with 50 % chance of each.

Pre-drill, the fluid factor cube suggested the presence of hydrocarbons in Mim and Mim North. The anomaly on Mim is defined as class II with partly conformance with depth. It is observed that the Mim anomaly is at the same location as anomalies seen in the overburden (anomalous cap rock) and below (Åre). Post-well, the shale properties in the overburden are the most likely explanation to the brightening effect seen at Top Garn.

Osprey

Osprey is a gas discovery in Lysing Fm. The trap is stratigraphic within sealing Kvitnos Fm shales. The discovery well 6507/3-12 detected 6,5 m Lysing sand of good quality with gas-down-to. Apex depth is 2493 m and the reservoir is over-pressured.

Osprey is mapped on a very subtle amplitude anomaly and is not anomalous compared to other Lysing Fm discoveries/fields in the area, like Ærfugl, Marulk and Snadd Outer Outer. Hence Osprey was not recognized as a prospect prior to drilling the 6507/3-12 well. However, amplitude strength in Osprey is slightly increased compared to the background/outside prospect on Far stack seismic.

PGS18M01 seismic survey was acquired for mapping and evaluating Osprey. The survey has improved imaging for the Cretaceous section compared to other available surveys covering Osprey, but resolution was still a problem for mapping such a thin reservoir.

In initial post-well evaluation, the outline of Osprey was based on amplitude on Top and Base Lysing Fm, as illustrated in Fig. 4.2. The base anomaly extends further to west than the anomaly on top. Osprey was divided into two segments; the segment that was mapped on top response and seen as proven (segment 1), and the segment mapped on base response, seen as upside (segment 2). The latter had an associated risk in the volume calculation. It was believed that a thin gas saturated sand could be present, which produced an anomaly on the base reservoir reflector, but not on top. A different thickness distribution was set for the two segments. Distribution ranges for thickness, gas-water contact and depth of crest and spill point applied in volume calculation are listed in Table 4.6. For the GWC, two different scenarios were assumed: 1) Osprey is in pressure communication with the Trost discovery north-east of Osprey, and 2) Osprey is not in communication with Trost. Distributions from the two different scenarios were weighted equally in the volume calculation. The first scenario has a narrow distribution around the depth derived from pressure plot when assuming pressure communication with Trost. The second distribution has GWC with minimum set to the GDT depth, and maximum equalling the deepest point mapped within Osprey.

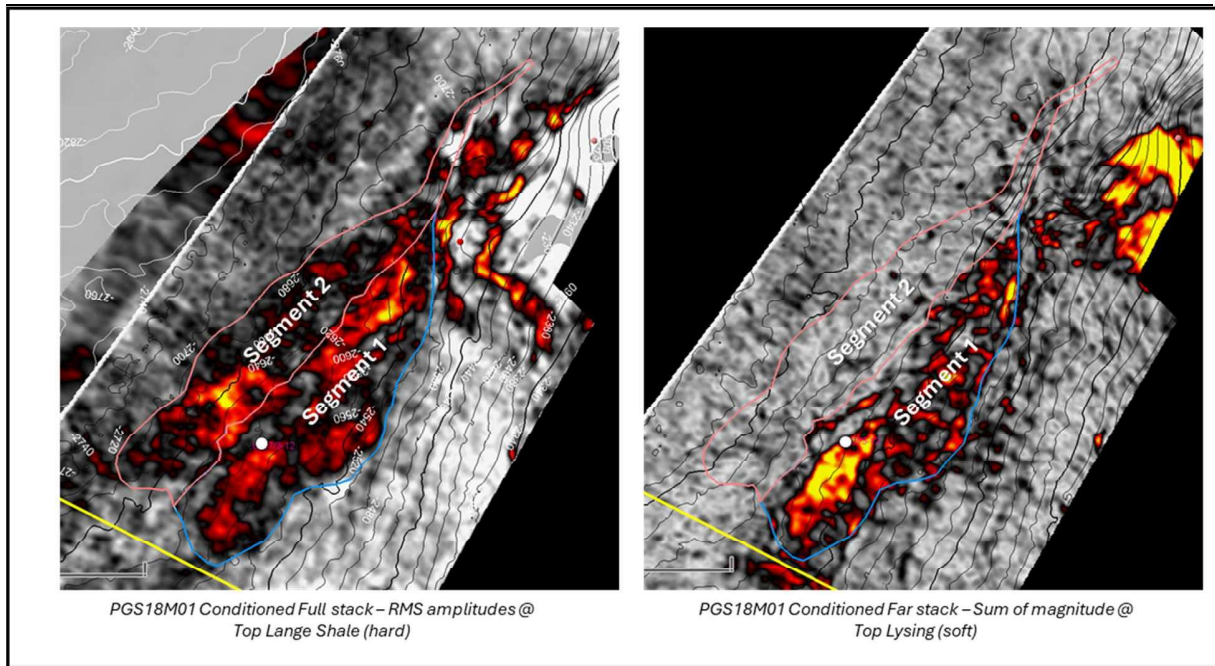


Fig. 4.2 Initial outline of Osprey, defined on amplitude maps for Top and Base Lysing (Top Lange)

An updated prospect evaluation was performed in 2023, which was based on geophysical studies that could not support the prospect outline, or the applied ranges for thickness and GWC distribution in the initial evaluation. Table 4.6 lists the changes in volume input parameters between the initial and the final evaluation.

Table 4.6 Osprey initial versus final parameters for volume calculation

Parameter	Initial			Final		
	P90	Mean	P10	P90	Mean	P10
Depth of crest [m]	2506	2506	2506	2493	2493	2493
Thickness [m]	*5/**3	*8/**5	*11/**8	4	5	7
GWC [m]	2637	2671	2690	2604	2609	2614
Spill point depth [m]	2713	2713	2713	2620	2620	2620

*Segment1/**segment2

The updated prospect outline is defined by sand pinch-out and down-dip structural spill and includes only the area where an anomaly was present on the Top Lysing reflector, illustrated in Fig. 4.3. There was no geophysical support found for the presence of a thin gas sand producing an anomaly on base Lysing reflector, while not on Top. The anomaly is conforming to the down-dip depth contour corresponding to a possible spill point towards north. Seismic wedge modelling was performed to evaluate sand thickness range. Due to the limited amplitude strength in Osprey, and an expectation of significantly brighter anomaly for a gas saturated Lysing sand of thickness above around 15 m, the max thickness expected within Osprey at the brightest amplitude spot was 10 m. The range for average prospect thickness was set to 3-8 m. Seismic interpretation is challenging in the north-most part of Osprey and towards Trost. In the

updated prospect evaluation, no basis was found for assuming a shared GWC between Osprey and Trost. Lysing sand is thinning towards Trost (4 m thickness in Trost well) and several faults are present between Osprey and Trost. The gas-water contact range was set between the GDT depth and spill point depth. The petrophysical reservoir properties and fluid properties used for updated volume calculation remained the same as in the initial evaluation and are listed in Table 4.7.

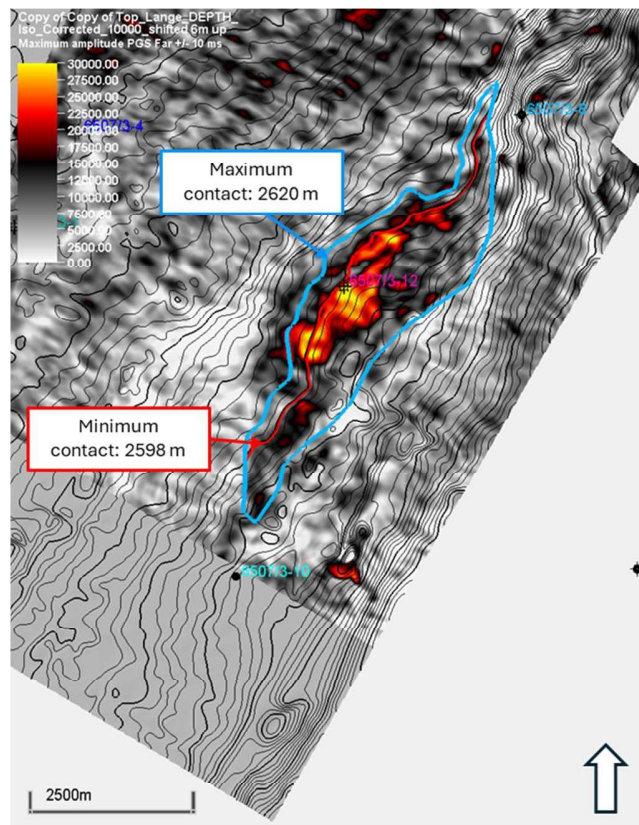


Fig. 4.3 Re-evaluated final prospect outline for Osprey, defined on Top Lysing anomaly

Table 4.7 Osprey discovery data

Oil, Gas or O&G case: This is case no.:	Block#(50)/73 Play name	Prospect name New Play (Y/N)	Osprey	Discovery/Prospect lead Outside play (Y/N)	Discovery	Prosp ID (or New)	NPD will insert value	NPD approved (Y/N)	Assessment year Seismic database (2D/2D)
		Main phase	Base, Mode	Base, Mean	High (P10)	Low (P90)	Base, Mode	Base, Mean	High (P10)
In place resources	Oil [10 ⁶ Sm ³] (>0.00)	0.84	1.16	1.13	1.57				
Recoverable resources	Gas [10 ⁶ Sm ³] (>0.00)								
	Oil [10 ⁶ Sm ³] (>0.00)	0.49	0.89	0.91	1.29				
Reservoir Chrono (to)	Upper Cretaceous	Reservoir litho (from)	Cromer Knoi Sp	Source Rock, chrono primary	Upper Jurassic	Source Rock, litho primary	Spekk Fm	Seal, Chrono	Upper Cretaceous
Reservoir Chrono (to)	Upper Cretaceous	Reservoir litho (to)	Cromer Knoi Sp	Source Rock, chrono secondary	Upper Jurassic	Source Rock, litho secondary	Melke Fm	Seal, Litho	Kivnos Fm
Probability (fraction)									
Total (oil + gas + oil & gas case) (0.00-1.00)	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)		Trap (P2) (0.00-1.00)	1.00	Charge (P3) (0.00-1.00)	1.00	Retention (P4) (0.00-1.00)	1.00		
Parameters:		Base	High (P10)	Comments					
Depth to top of prospect [m MSL] (> 0)	2493	2493							
Area of closure [km ²] (> 0.0)	6.9	7.2	7.6						
Reservoir thickness [m] (> 0)	4	5	7						
HC column in prospect [m] (> 0)	111	116	121						
Gross rock vol: [10 ⁶ m ³] (> 0.000)	0.028	0.037	0.046						
Net / Gross fraction (0.00-1.00)	0.77	0.85	0.92						
Porosity fraction (0.00-1.00)	0.22	0.25	0.27						
Permeability [mD] (> 0.0)	10.0	150.0	500.0						
Water Saturation fraction (0.00-1.00)	0.45	0.37	0.29						
Eg [Sm ³ /Sm ³] (< 1.0000)									
1/So [Sm ³ /Sm ³] (< 1.00)									
GOR, free gas [Sm ³ /Sm ³] (> 0)									
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)									
Recov. factor, liquid ass. phase fraction (0.00-1.00)	0.58	0.73	0.82						
Temperature, top res [°C] (>0)									
Pressure, top res [bar] (>0)									
Cut off criteria for N/G calculation	1	2	3						
				For NPD use					
				limapp. av geolog-mit.					
				Date:					
					NCD will insert value	Register - mit.	NCD will insert value	Kart oppdølet	NCD will insert value
					NCD will insert value	Register Date:	NCD will insert value	Kart dato	NCD will insert value
								Kart nr	NCD will insert value

5 Technical Evaluation

Several development scenarios were evaluated for a potential Osprey development. Due to limited marginal volumes, a cost-efficient development solution for Osprey was crucial. When Equinor was Operator, different MLT solutions for a Gjøk-Osprey well were evaluated, among other possible solutions. It was concluded that due to high inclination between Gjøk and Osprey, it would not be possible to get an optimal well path for both, and it was not recommended to drill a Gjøk-Osprey well.

Orlen assessed development with tie-back to Skarv via Ærfugl. Finally, drilling an Osprey production well from the Norne M-template was evaluated (Fig. 5.1), which was a more cost-efficient development solution, but with significant risk of failure. This solution would require a high inclination well with a 5-6 km step-out and 6.5 to 8 km well path.

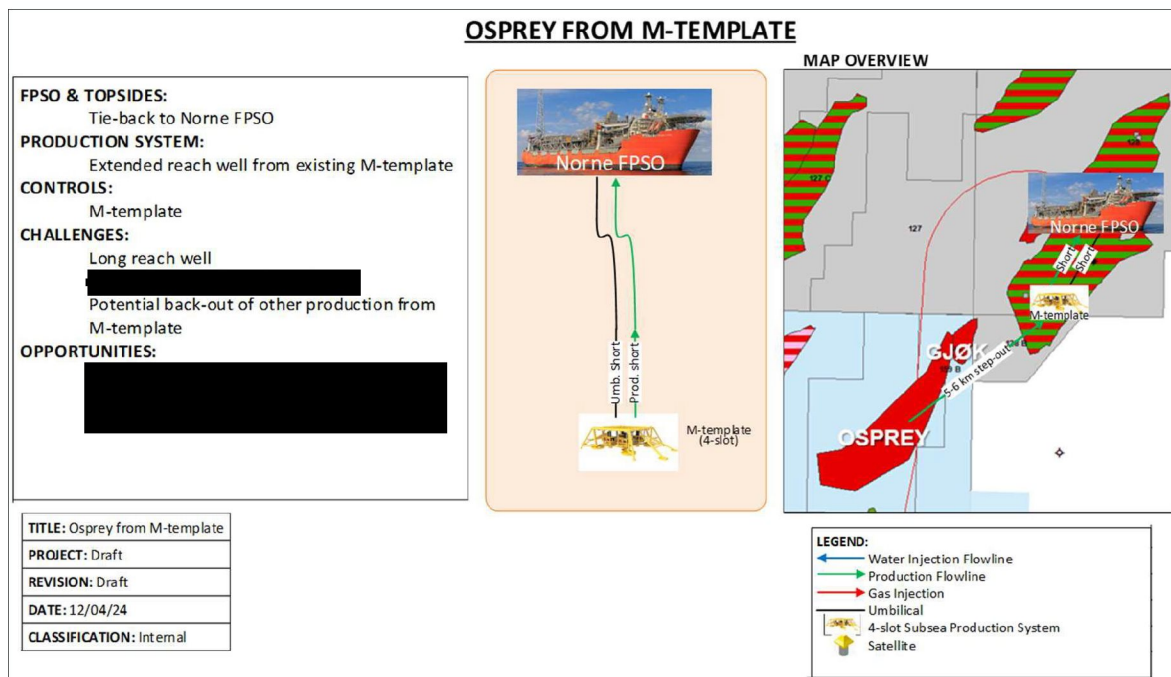


Fig. 5.1 Osprey Development Scenario

The development solution for Osprey consisted of one producer drilled from the Norne M-template. This would be Extended Reach Drilling (ERD) with high inclination and long well path.

6 Conclusion

The initial prospectivity in the licence was the Middle Jurassic Mim and Mim North prospects. Mim was tested by the 6507/3-12 exploration well in 2017 and was found water bearing with oil shows. Re-evaluation of Mim North and remaining potential in Mim was performed based on the well results, including various studies performed utilizing the well data. Volume potential was significantly reduced compared to pre-well evaluation. COS was significantly reduced for Mim, while slightly reduced for Mim North. Based on the post-well re-evaluation, these two prospects were no longer considered attractive drill targets.

The Osprey gas discovery made by the 6507/3-12 well in Cretaceous Lysing Fm was unexpected, and Osprey was not a prospect prior to drilling the well. After the re-evaluation of Mim and Mim North, Osprey became the main object of interest in the license.

An initial post-well evaluation of Osprey resulted in limited, but potentially attractive volumes. Several studies were performed for Osprey. Seismic studies and modelling were important for understanding the dim seismic anomaly of Osprey. The final prospect evaluation resulted in reduced volumes compared to the initial evaluation. This was a consequence of reduced reservoir thickness and HC column height prediction, as well as a change in the prospect outline. Because of the limited volume and marginal economic potential, as well as a high risk of failure associated with the development concept, Osprey is not seen as an attractive candidate for development.

The licence partners have unanimously decided to surrender the licence due to too small recoverable resources.