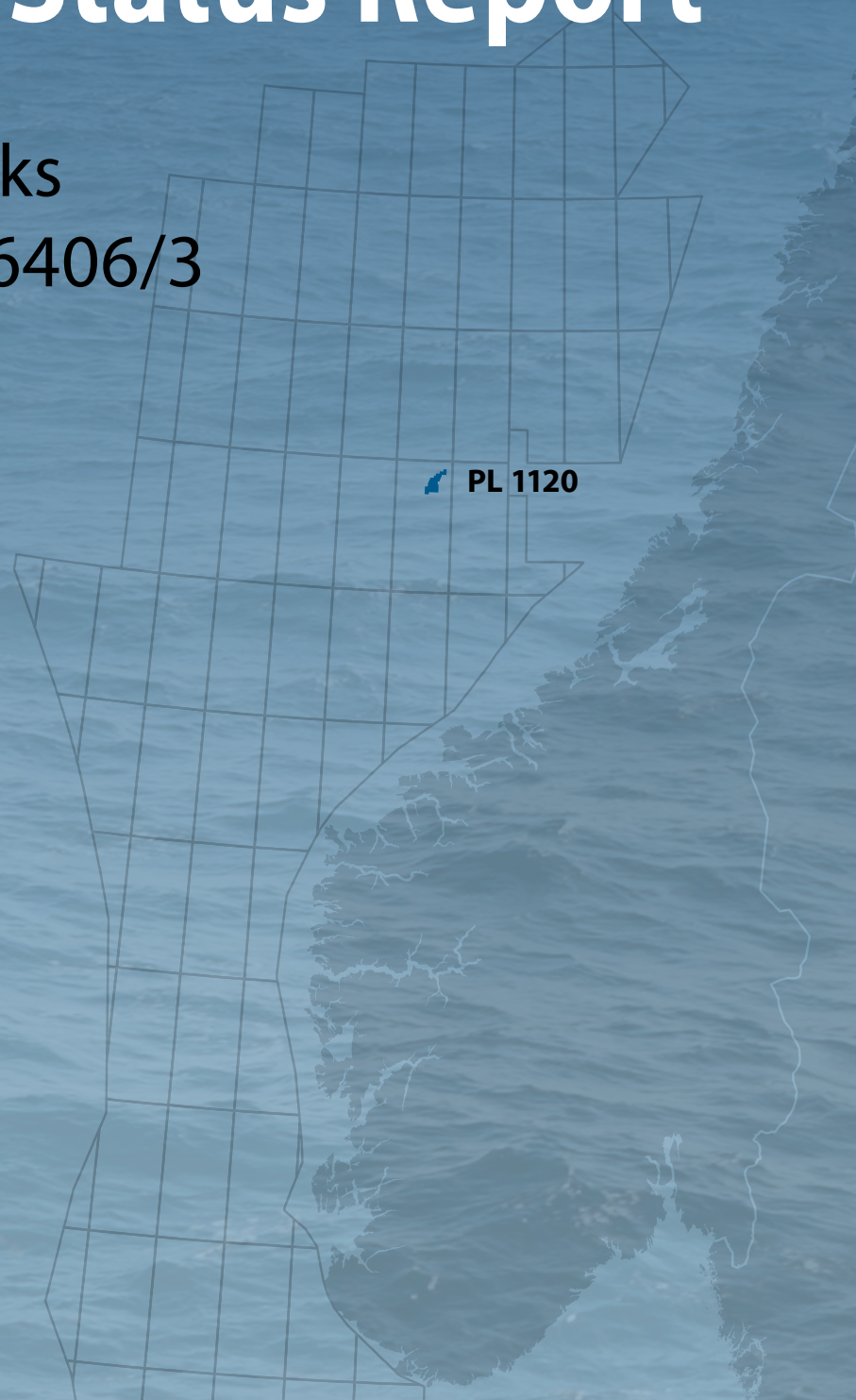




PL 1120

Licence Status Report

Parts of Blocks
6406/2 and 6406/3



PL 1120





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Table 1.1 PL 1120 partnership

Company	Equity
DNO Norge AS	40% (Operator)
Harbour Energy Norge	20% (Partner)
Equinor	20% (Partner)
Vår Energi	20% (Partner)

The work commitment at the time of the licence award consisted of acquire 3D seismic data and G&G studies, prior to the initial drill or drop decision (DoD), 19th February 2025.

A one-year licence extension was applied for on the 26th January 2023, with a new DoD on the 19th February 2024 granted by the authorities. Subsequently, a second licence extension, applied for on the 21st December 2023, was granted with a new DoD extended to the 19th February 2025.

The following meetings were held in the licence:

2021

- Exploration/Management Committee Licence Kick-Off Meeting: 12th April
- Exploration/Management Committee Licence Meeting: 25th November

2022

- Exploration Committee Licence Work Meeting: 9th May
- Exploration Committee Licence Work Meeting: 14th November
- Exploration/Management Committee Licence Meeting: 22nd November

2023

- Exploration/Management Committee Licence Meeting: 28th November

2024

- Exploration/Management Committee Licence Meeting: 29th November

2025

- Management Committee Licence Meeting: 17th January

Since the award, the Joint Venture has fulfilled the work programme and matured the Middle to Lower Jurassic Top Hat prospect in PL1120. Acquisition of 3D seismic has been conducted, PGS18M05, and geophysical conditioning undertaken. G&G work has been undertaken to mitigate the key risks in the licence. The key risks for the Top Hat prospect are trap seal and reservoir effectiveness.

The recoverable P50 volumes for Top Hat Lower Tilje segment are 18 Mmboe (total resources). Probability of success is 48%.

Due to the complexity of the Top Hat Prospect and weak economics, Top Hat does not meet the requirements to take a positive drill decision in PL1120. A SMIL report for relinquishment of the licence was sent on the 19th February 2025 and approved by OED on the 11th March 2025.

2 Database Overview

2.1 Seismic data

The common database for PL1120 consists of 270 km² seismic data comprising the PGS survey PGS18M05NWS. The common database outline is portrayed in Fig. 2.1

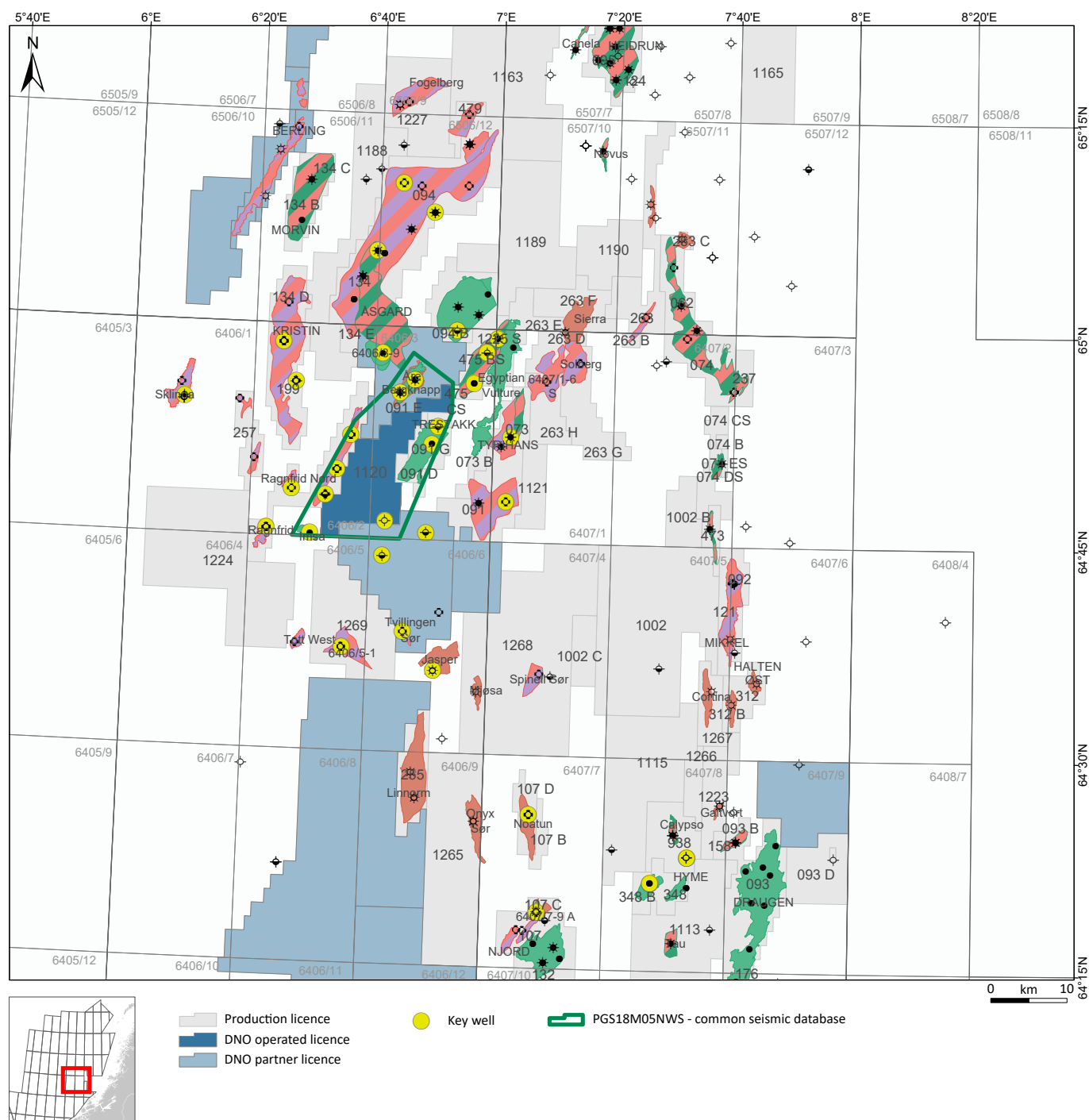


Fig. 2.1 PL1120 Common Database
Overview of key wells and seismic data.

A combination of PGS18M01 and released seismic data were used in the prospect mapping for the application in 2020. After acquisition of 3D seismic data, PGS18M05NWS was used in the evaluation of prospectivity in the licence. The licence partners agreed on seismic conditioning of PGS18M05NWS due to the suboptimal data quality for interpretation of the Jurassic across the licence. A conditioning flow in PPro was undertaken, including 1D whitening applied to conditioned angle stacks. The work resulted in more confidence in the interpretation locally, specifically for juxtaposition configuration analyses.

2.2 Well data

An overview of the common well database is provided in [Table 2.1](#) and [Fig. 2.1](#) and includes the relevant wells used in the licence evaluation. The common well database consists of 37 wells.

Table 2.1 PL1160 common well database

Well	Result	Completion date	Release status	TD stratigraphy	TD (m TVD RKB)	Petrophysics	Biostrat.	Seismic to well tie	Field/ Discovery
6406/2-1 R	Gas/cond	1996	Released	Åre Fm	5790	x		x	Lavrans
6406/2-2	Gas/cond	1996	Released	Åre Fm	5351	x			Lavrans
6406/2-3	Gas/cond	1997	Released	Åre Fm	5255.9		x		Kristin
6406/2-4 SR	Gas/cond	1999	Released	Åre Fm	4969.6	x			Lavrans
6406/2-5 A	Gas/cond	1998	Released	Ror Fm	4956				Kristin
6406/2-8	Oil	2015	Released	Åre Fm	4680	x			Imsa
6406/3-1	Gas shows	1984	Released	Red beds	4896	x		x	Eta
6406/3-2	Oil	1986	Released	Åre Fm	4522	x		x	Trestakk
6406/3-3	Shows	1986	Released	Åre Fm	4416	x			Smørbukk Sør
6406/3-4	Oil shows	1987	Released	Tilje Fm	4410	x		x	Trestakk
6406/3-5	Shows	1988	Released	Tilje Fm	4281	x			Maria
6406/3-7	Dry	2006	Released	Åre Fm	4507.2	x		x	Antares
6406/3-8	Oil	2010	Released	Tilje Fm	4138	x	x	x	Maria
6406/5-1	Gas/cond	2002	Released	Tilje Fm	4684	x		x	Tott
6406/6-1	Shows	1985	Released	Tilje Fm	4708	x			
6406/6-4 S	Gas/cond	2015	Released	Tilje Fm	4468	x			Tvillingen Sør
6407/1-5 S	Oil/gas	2012	Released	Tilje Fm	4164				Maria
6406/3-10	Oil	2020	Released	Åre Fm	4566	x	x	x	Bergknapp
6406/3-10 A	Oil	2021	Released	Åre Fm	4884	x	x	x	Bergknapp
6406/2-6	Gas/cond	1998	Released	Åre Fm	5256	x			Rangfrid
6406/2-9 S	Gas/cond	2019	Released	Tilje Fm	4919				Rangfrid Nør
6406/3-9	Oil	2012	Released	Lange Fm	4183				
6406/6-6 S	Gas	2018	Released	Ror Fm	4818	x			Jasper
6406/1-4	Shows	2005	Released	Red beds	4593	x			
6407/7-8 A	Gas/cond	2008	Released	Åre Fm	5227				Noatun
6407/7-9 A	Gas	2016	Released	Åre Fm	4156				Njord North Flank 3
6407/7-9 S	Oil/Gas/Cond	2016	Released	Åre Fm	4134				Njord North Flank 2
6407/8-6	Oil	2013	Released	Grey Beds	3420				Bauge
6407/8-6 A	Oil	2013	Released	Åre Fm	3288				Bauge
6407/8-7	Dry	2015	Released	Åre Fm	3030				
6407/8-7 A	Dry	2015	Released	Åre Fm	2810				
6506/11-5 S	Oil/Gas	1996	Released	Åre Fm	4729				Smørbukk
6406/12-10 A	Oil/Gas	1995	Released	Åre Fm	5361				Smørbukk
6506/12-1	Oil/Gas	1985	Released	Åre Fm	4924	x	x		Smørbukk
6407/1-2	Gas/cond	1983	Released	Grey Beds	4558	x	x		Tyrihans Sør
6407/1-3	Oil/gas	1983	Released	Grey Beds	4467	x	x		Tyrihans Nord
6406/3-12 S	x	2023	Not released	x	x	x	x	x	Bergknapp

3 Geological and Geophysical Studies

Listed below is a summary of the geological and geophysical work carried out in the PL1120 licence:

Prospect Evaluation

- Regional and prospect based seismic interpretation, including seismic well ties for key wells around the licence area
- Reservoir studies for the Bât and Fangst Gps to assist in mitigating reservoir effectiveness risk
- Sequence and seismic stratigraphy with main focus on the Tilje Formation
- Fault seal analysis study to reduce the risk of the eastern boundary fault
- Petroleum systems modelling
- Volumetric and risking updates and assessment of commercial potential
- Licence prospect ranking

Seismic conditioning (PGS18M05NWS)

- Seismic conditioning was performed internally in DNO to improve seismic imaging and mapping. Conditioning resulted in improved reflectivity for key horizon picks.

Rock physics and seismic modelling

- Rock physics sensitivity for nearby wells
- Sharp Reflections geophysical PQube+ inversion study

Depth Conversion

- PGS18M05NWS velocity model was used for depth conversion

Pressure Studies

- Internal pressure and seal study with emphasis on the regional distribution of the Intra Tilje seal

These studies were integrated throughout the prospect evaluation. Seismic conditioning, resulting in improved imaging of reflectivity, and the integration of analogue well data had the largest influence on the outcome of the PL1120 evaluation.

4 Prospect Update

APA 2020

The main prospect identified during the licensing round was the Top Hat Prospect with the primary reservoir in the Lower Jurassic Tilje Formation. Stratigraphically younger Garn, Ile and Tofte reservoirs were also considered as potential secondary reservoir targets.

Leads identified were the Top Hat Sør and Top Hat Downflank, with Middle to Lower Jurassic targets and the Tyne, Lower Cretaceous. The prospectivity carried by the Operator at time of application is summarised in [Fig. 4.1](#) and [Table 4.1](#). The Jurassic leads were matured to prospect level, apart from the Tyne Cretaceous lead, however, this potential upside in the licence was not deemed economical due to the negative economics on Top Hat.

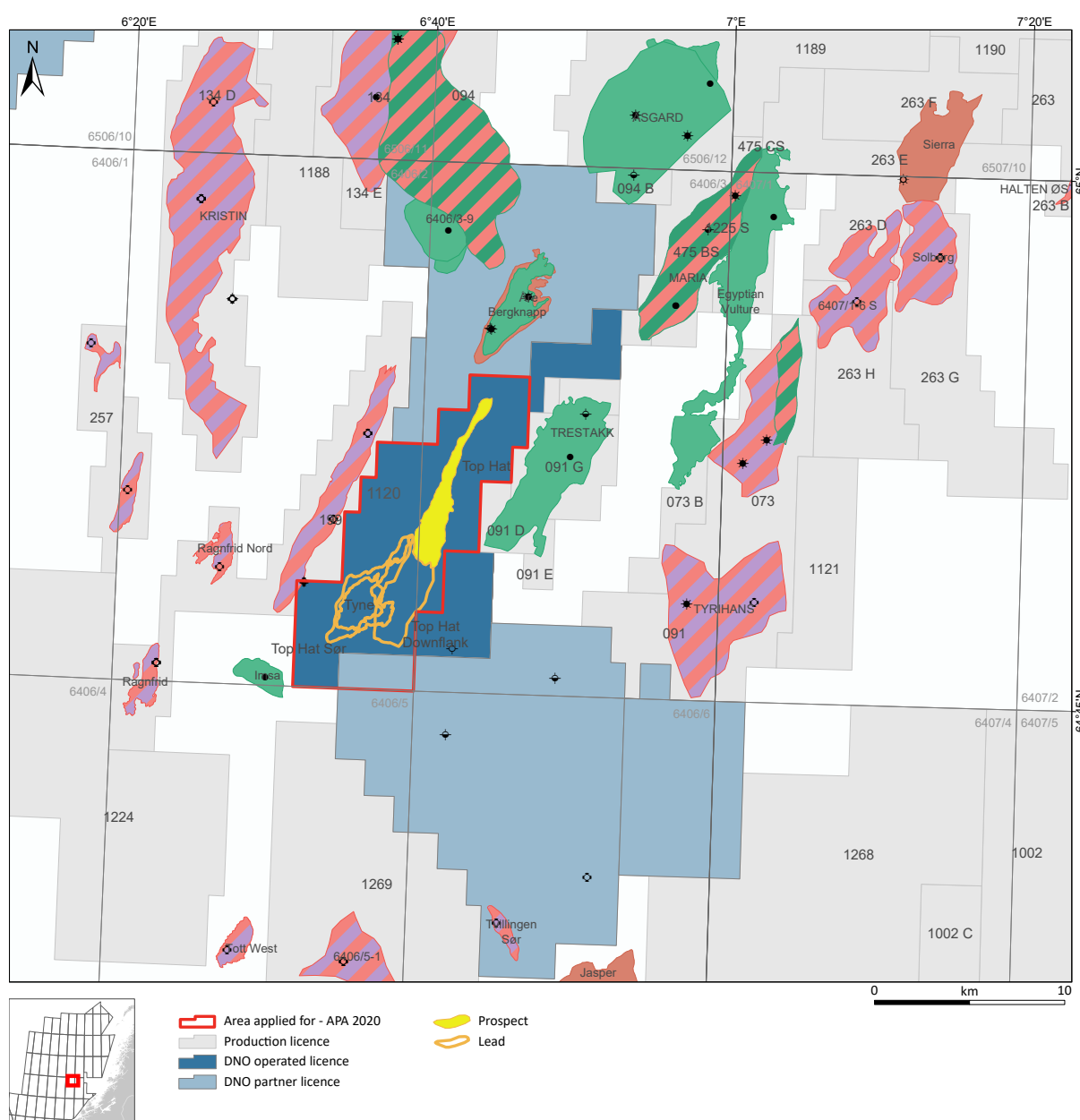


Fig. 4.1 APA 2020 summary map
Prospectivity overview at time of application.

Table 4.1 Table 2 Resource Potential
Overview of resource potential at time of application.

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 ⁶ Sm ³] (>0.00)			Gas [10 ⁶ Sm 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)						
Top Hat	P	Oil	0.90	2.83	5.49	0.27	0.85	1.64	0.35	100.0	Tilje Fm / Lower Jurassic	4246	Maria	15
Top Hat Downflank	L	Oil								100.0	Ile & Garn fms / Middle Jurassic	4110	Maria	15
Top Hat Sor	L	Oil								100.0	Tilje Fm / Lower Jurassic	4200	Maria	20
Tyne	L	Gas								100.0	Lange & Lysing fms / Lower-Upper Cretaceous	3580	Maria	20

The resource potential carried by the operator for the Top Hat Lower Tilje at the time of relinquishment is summarised in [Table 4.2](#).

Table 4.2 Table 4 Lower Tilje
Prospect data summary.

Block	6406/3	Prospect name	Top Hat Lower Tilje	Discovery/Prospect/Lead	Prospect	Prospect ID (or New)	NOD will insert value	NPD approved (Y/N)	
Play name	NOD will insert value	New Play (Y/N)		Outside play (Y/N)					
Oil, Gas or O&G case:	Oil	Reported by company	DNO Norge AS	Reference document	PL1120 Status Report			Assessment year	2024
This is case no:	1 of 1	Structural element	Halten Terrace	Type of trap	Structural	Water depth [m MSL] (>0)	275	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) Gas [10 ⁹ Sm ³] (>0.00)	4.20 1.07	6.61 1.95	7.68 2.29	11.43 3.67	1.24 0.32	1.77 0.56	2.31 0.69	3.48 1.14
Recoverable resources	Oil [10 ⁶ Sm ³] (>0.00) Gas [10 ⁹ Sm ³] (>0.00)	1.07 0.14	1.95 0.63	2.29 0.78	3.67 0.17	0.32 0.16	0.56 0.17	0.69 0.17	1.14 0.17
Reservoir Chrono (from)	Plensbachian	Reservoir litho (from)	Lower Tilje Fm	Source Rock, chrono primary	Oxfordian-Tithonian	Source Rock, litho primary	Spekk and Melke Fm	Seal, Chrono	Oxfordian-Tithonian
Reservoir Chrono (to)	Plensbachian	Reservoir litho (to)	Lower Tilje Fm	Source Rock, chrono secondary	Sinemurian	Source Rock, litho secondary	Are Fm	Seal, Litho	Upper Jurassic
Probability (fraction)									
Total (oil + gas + oil & gas case) (0.00-1.00)	0.48	Oil case (0.00-1.00)	1.00	Gas case (0.00-1.00)	0.00	Oil & Gas case (0.00-1.00)	0.00		
Reservoir (P1) (0.00-1.00)	0.80	Trap (P2) (0.00-1.00)	0.60	Charge (P3) (0.00-1.00)	1.00	Retention (P4) (0.00-1.00)	1.00		
Parameters:	Low (P90)	Base	High (P10)	Comments: Retention (P4) is included in Trap (P2). For Parameters section, Base is Mean.					
Depth to top of prospect [m MSL] (> 0)			4250						
Area of closure [km ²] (> 0.0)		4.0	6.0	7.9					
Reservoir thickness [m] (> 0)									
HC column in prospect [m] (> 0)		118	170	232					
Gross rock vol [10 ⁹ m ³] (> 0.000)		0.147	0.240	0.326					
Net / Gross (fraction) (0.00-1.00)		0.47	0.63	0.78					
Porosity (fraction) (0.00-1.00)		0.14	0.16	0.17					
Permeability [mD] (> 0.0)									
Water Saturation (fraction) (0.00-1.00)		0.30	0.35	0.40					
Bq [Rm3/Sm3] (< 1.0000)									
1Bo [Sm3/Rm3] (< 1.00)		0.46	0.50	0.55					
GOR, free gas [Sm ³ /Sm ³] (> 0)									
GOR, oil [Sm ³ /Sm ³] (> 0)		250	300	350					
Recov. factor, oil main phase (fraction) (0.00-1.00)		0.20	0.30	0.40					
Recov. factor, gas ass. phase (fraction) (0.00-1.00)		0.20	0.30	0.40					
Recov. factor, gas main phase (fraction) (0.00-1.00)									
Recov. factor, liquid ass. phase (fraction) (0.00-1.00)									
Temperature, top res [°C] (>0)	153							Kart oppdatert	NPD will insert value
Pressure, top res [bar] (>0)	458							Kart dato	NPD will insert value
Cut off criteria for NIG calculation	1.VCL-0.1	2.PHIE>0.4	3.					Kart nr	NPD will insert value

Top Hat Lower Tilje (prospect)

The Top Hat prospect is a Middle to Lower Jurassic fault bound elongated horst block (Fig. 4.2, Fig. 4.3 and Fig. 4.4). Large fault throw is observed to the east and west of the structure with dip closure to the north, where the spill point is controlled by a relay structure, towards the Trestakk Field. The primary reservoir target is the Lower Tilje Formation with secondary potential in the Upper Tilje Formation. The majority of the Fangst Group has been truncated by Upper Jurassic erosion, however, there may be some preserved potential in the Tofte Formation towards the south of the structure. Top seal for the Lower Tilje Formation are intraformational Tilje shales with an ultimate top seal of Upper Jurassic shales. It is likely that the Tilje Formation has separate columns, Lower and Upper, due to identified pressure barriers in the area. Source rock is the Upper Jurassic Spekk shale and the fetch area is expected directly down-dip of the Top Hat structure (Fig. 4.2). Oil is the expected phase and the mean recoverable volume is 3 million Sm³. The COS is 48% and the main risks are trap seal and reservoir quality.

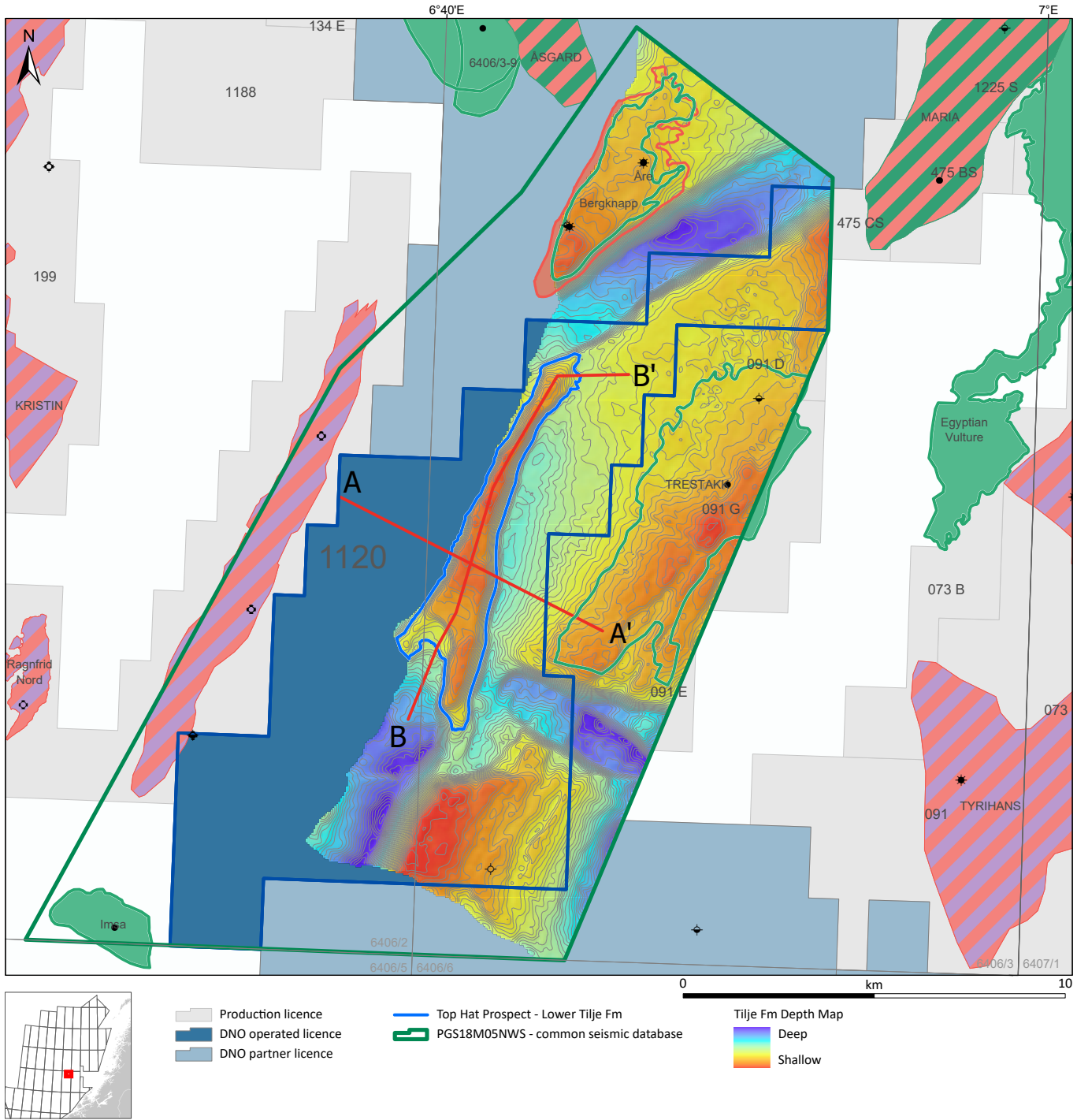


Fig. 4.2 PL1120 Top lower Tilje depth map
 Line of section A-A' and B-B' refer to Geoseismic sections in Figures 4.3 and 4.4.

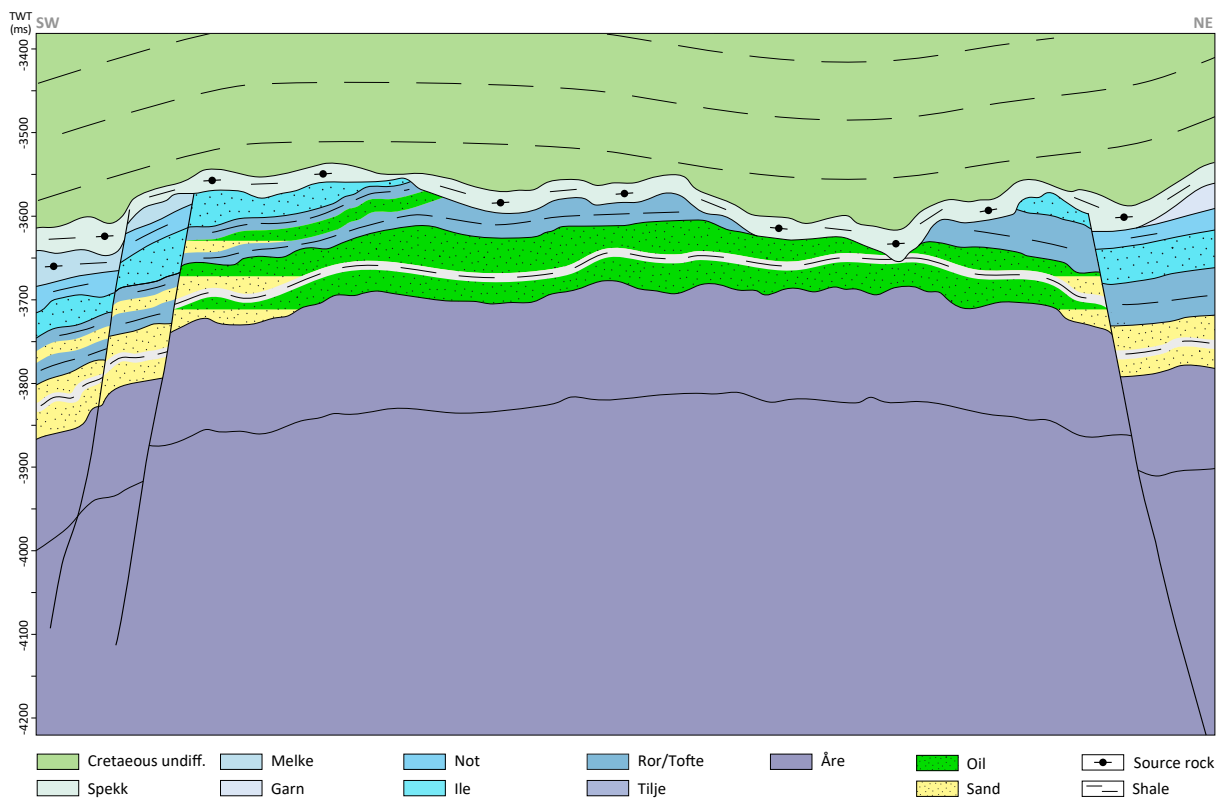
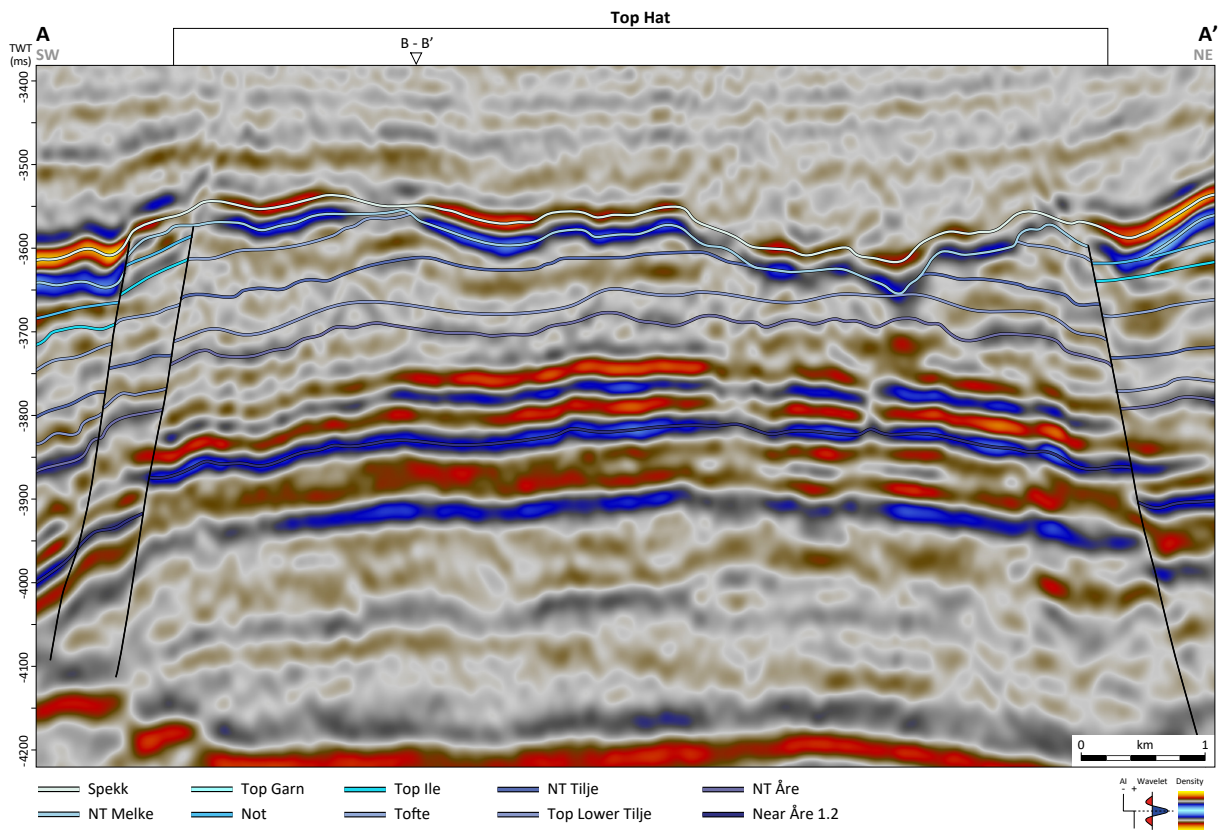


Fig. 4.3 Top Hat Geosection strike line
 See Fig. 4.2 for location of section. Strike line through the Top Hat structure.

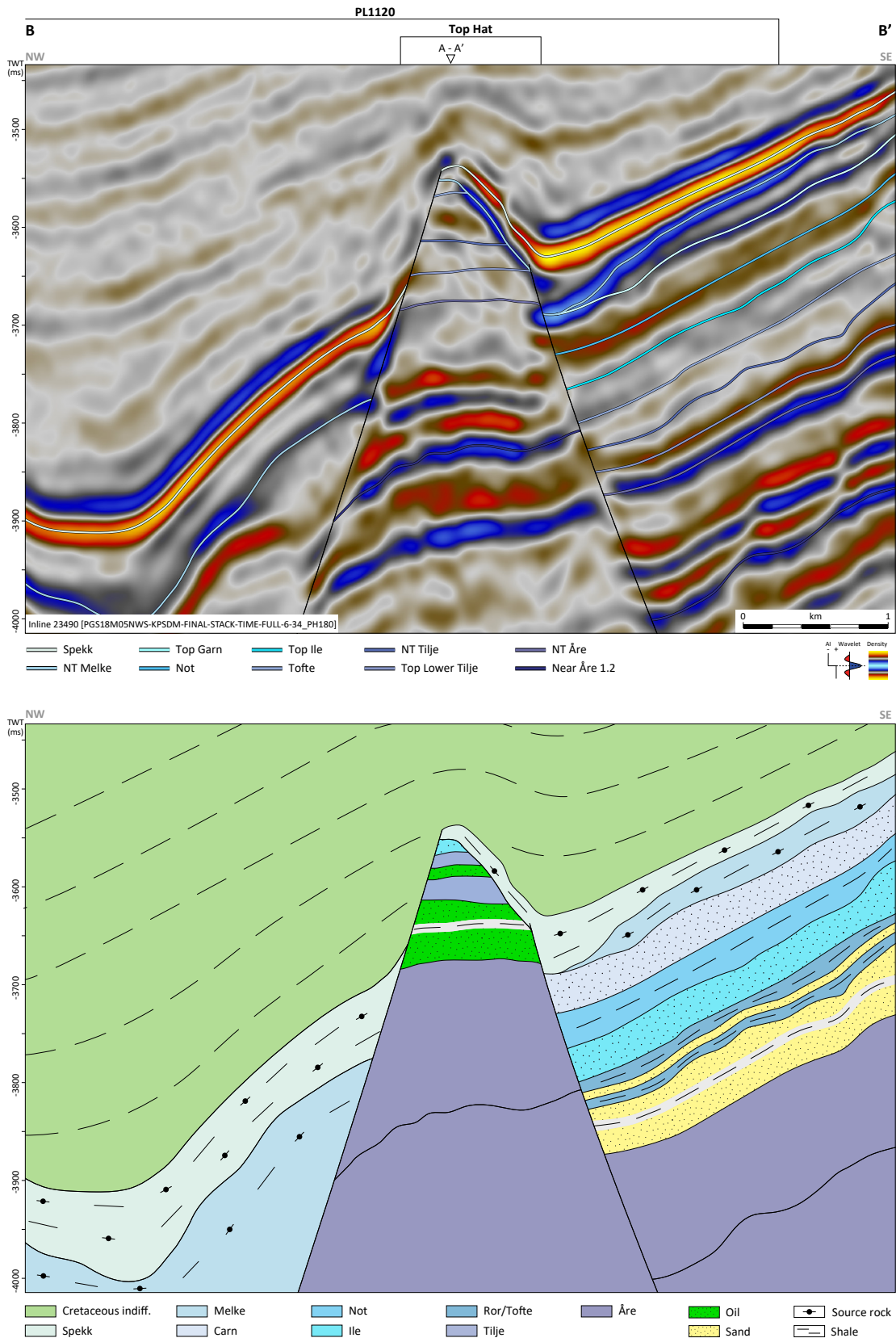


Fig. 4.4 Top Hat Geosection dip line
 See Fig. 4.2 for location of section. Strike line through the Top Hat structure.



Top Hat Upper Tilje (prospect)

Top Hat Upper Tilje is defined in the same way as Top Hat Lower Tilje. The main risk is trap seal and reservoir quality. Oil is the expected phase. Resource potential is summarised in [Table 4.3](#).

Table 4.3 Table 4 Upper Tilje Prospect data summary.

Table 4: Discovery and Prospect data (Enclose map)										
Block	Prospect name	Top Hat Upper Tilje	Discovery/Prospl/Lead	Prospect	Prosp ID (or New)	NOD will insert value	NPD approved (Y/N)			
6406/3	Top Hat Upper Tilje									
Play name	NOD will insert value	New Play (Y/N)	Outside play (Y/N)							
Oil, Gas or O&G case:	Oil	Reported by company	DNO Norge AS	Reference document	PL1120 Status Report		Assessment year	2024		
This is case no.:	1 of 1	Structural element	Halten Terrace	Type of trap	Structural	Water depth [m MSL] (<=0)	275	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)	3.12	6.26	6.33	9.66					
	Gas [10 ⁶ Sm ³] (>0.00)					0.50	1.03	1.01	1.56	
Recoverable resources	Oil [10 ⁶ Sm ³] (>0.00)	0.22	0.38	0.63	1.11					
	Gas [10 ⁶ Sm ³] (>0.00)					0.04	0.07	0.10	0.18	
Reservoir Chrono (from)	Plensbachian	Reservoir litho (from)	Upper Tilje	Source Rock, chrono primary	Oxfordian-Tithonian	Source Rock, litho primary	Spekk and Melke Fm	Seal, Chrono	Oxfordian-Tithonian	
Reservoir Chrono (to)	Plensbachian	Reservoir litho (to)	Upper Tilje	Source Rock, chrono secondary	Sinemurian	Source Rock, litho secondary	Are Fm	Seal, Litho	Upper Jurassic	
Probability [fraction]			Oil case (0.00-1.00)	1.00	Gas case (0.00-1.00)	0.00	Oil & Gas case (0.00-1.00)	0.00		
Total (oil + gas + oil & gas case) (0.00-1.00)	0.48	Trap (P2) (0.00-1.00)	0.80	Charge (P3) (0.00-1.00)	1.00	Retention (P4) (0.00-1.00)	1.00			
Reservoir (P1) (0.00-1.00)	0.60									
Parameters:			Low (P90)	Base	High (P10)	Comments: Retention (P4) is included in Trap (P2). For Parameters section, Base is Mean.				
Depth to top of prospect [m MSL] (> 0)			4190							
Area of closure [km ²] (> 0.0)		3.6	5.4	7.3						
Reservoir thickness [m] (> 0)										
HC column in prospect [m] (> 0)		109	171	251						
Gross rock vol. [10 ⁶ m ³] (> 0.000)		0.161	0.304	0.419						
Net / Gross [fraction] (0.00-1.00)		0.42	0.55	0.68						
Porosity [fraction] (0.00-1.00)		0.11	0.13	0.14						
Permeability [mD] (> 0.0)										
Water Saturation [fraction] (0.00-1.00)		0.34	0.40	0.46						
Bg [Rm3/Sm3] (< 1.0000)										
1/Bo [Sm3/Rm3] (< 1.00)		0.46	0.50	0.55						
GOR, free gas [Sm ³ /Sm ³] (> 0)										
GOR, oil [Sm ³ /Sm ³] (> 0)		142	160	178						
Recov. factor, oil main phase [fraction] (0.00-1.00)		0.05	0.10	0.15						
Recov. factor, gas ass. phase [fraction] (0.00-1.00)		0.05	0.10	0.15						
Recov. factor, gas main phase [fraction] (0.00-1.00)										
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)										
Temperature, top res [°C] (<=0)	153									
Pressure, top res [bar] (<=0)	458									
Cut off criteria for N/G calculation	1.VCL<=0.1	2.PHIE>=0.4	3.							
				For NPD use:						
				Innrapp. av geolog-init:	NOD will insert value	Registrert - init:	NPD will insert value	Kart oppdatert	NPD will insert value	
				Dato:	NOD will insert value	Registrert Dato:	NPD will insert value	Kart dato	NPD will insert value	
								Kart nr	NPD will insert value	

Top Hat Tofte (prospect)

Top Hat Lower Tofte is limited to the southern portion of the Top Hat structure with limited volume potential. Oil is the expected phase. Resource potential is summarised in [Table 4.4](#).

Table 4.4 Table 4 Tofte Formation Prospect data summary.

Table 4: Discovery and Prospect data (Enclose map)										
Block	Prospect name	Top Hat Tofte	Discovery/Prospl/Lead	Prospect	Prosp ID (or New)	NOD will insert value	NPD approved (Y/N)			
6406/3	Top Hat Tofte									
Play name	NOD will insert value	New Play (Y/N)	Outside play (Y/N)							
Oil, Gas or O&G case:	Oil	Reported by company	DNO Norge AS	Reference document	PL1120 Status Report		Assessment year	2024		
This is case no.:	1 of 1	Structural element	Halten Terrace	Type of trap	Structural	Water depth [m MSL] (<=0)	275	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)	0.60	0.89	1.10	1.71					
	Gas [10 ⁶ Sm ³] (>0.00)					0.18	0.26	0.33	0.53	
Recoverable resources	Oil [10 ⁶ Sm ³] (>0.00)	0.16	0.25	0.33	0.55					
	Gas [10 ⁶ Sm ³] (>0.00)					0.05	0.06	0.10	0.17	
Reservoir Chrono (from)	Toarcian	Reservoir litho (from)	Tofte Fm	Source Rock, chrono primary	Oxfordian-Tithonian	Source Rock, litho primary	Spekk and Melke Fm	Seal, Chrono	Oxfordian-Tithonian	
Reservoir Chrono (to)	Toarcian	Reservoir litho (to)	Tofte Fm	Source Rock, chrono secondary	Sinemurian	Source Rock, litho secondary	Are Fm	Seal, Litho	Upper Jurassic	
Probability [fraction]			Oil case (0.00-1.00)	1.00	Gas case (0.00-1.00)	0.00	Oil & Gas case (0.00-1.00)	0.00		
Total (oil + gas + oil & gas case) (0.00-1.00)	0.56	Trap (P2) (0.00-1.00)	0.80	Charge (P3) (0.00-1.00)	1.00	Retention (P4) (0.00-1.00)	1.00			
Reservoir (P1) (0.00-1.00)	0.70									
Parameters:			Low (P90)	Base	High (P10)	Comments: Retention (P4) is included in Trap (P2). For Parameters section, Base is Mean.				
Depth to top of prospect [m MSL] (> 0)			4190							
Area of closure [km ²] (> 0.0)		1.3	1.5	1.7						
Reservoir thickness [m] (> 0)		25	34	45						
HC column in prospect [m] (> 0)		130	156	181						
Gross rock vol. [10 ⁶ m ³] (> 0.000)		0.034	0.049	0.066						
Net / Gross [fraction] (0.00-1.00)		0.31	0.50	0.70						
Porosity [fraction] (0.00-1.00)		0.13	0.15	0.17						
Permeability [mD] (> 0.0)										
Water Saturation [fraction] (0.00-1.00)		0.34	0.40	0.46						
Bg [Rm3/Sm3] (< 1.0000)										
1/Bo [Sm3/Rm3] (< 1.00)		0.46	0.50	0.55						
GOR, free gas [Sm ³ /Sm ³] (> 0)										
GOR, oil [Sm ³ /Sm ³] (> 0)		250	300	350						
Recov. factor, oil main phase [fraction] (0.00-1.00)		0.20	0.30	0.40						
Recov. factor, gas ass. phase [fraction] (0.00-1.00)		0.20	0.30	0.40						
Recov. factor, gas main phase [fraction] (0.00-1.00)										
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)										
Temperature, top res [°C] (<=0)	153									
Pressure, top res [bar] (<=0)	458									
Cut off criteria for N/G calculation	1.VCL<=0.1	2.PHIE>=0.4	3.							
				For NPD use:						
				Innrapp. av geolog-init:	NOD will insert value	Registrert - init:	NPD will insert value	Kart oppdatert	NPD will insert value	
				Dato:	NOD will insert value	Registrert Dato:	NPD will insert value	Kart dato	NPD will insert value	
								Kart nr	NPD will insert value	

Top Hat Are (prospect)

Top Hat Åre is considered to be in a separate pressure compartment than the Tilje Formation. Juxtaposition seals are expected to retain a column, although difficult to assess how much. Lateral seals are highly likely due to the nature of the depositional environment, however, this also impacts reservoir compartmentalisation and constrains volumetric potential. Gas condensate is the expected phase. Resource potential is summarised in [Table 4.5](#).

Table 4.5 Table 4 Åre Formation Prospect data summary.

Table 4: Discovery and Prospect data (Enclose map)										
Block	6406/3	Prospect name	Top Hat Åre	Discovery/Prospl.lead	Prospect	Prospect ID (or New!)	NOD will insert value	NPD approved (Y/N)		
Play name	NOD will insert value	New Play (Y/N)		Outside play (Y/N)						
Oil, Gas or O&G case:	Gas	Reported by company	DNO Norge AS	Reference document	PL1120 Status Report			Assessment year	2024	
This is case no.:	1 of 1	Structural element	Halten Terrace	Type of trap	Structural	Water depth [m MSL] (<0)	275	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)									
	Gas [10 ⁶ Sm ³] (>0.00)	3.40	4.95	5.36	7.61	0.88	1.18	1.55	2.37	
Recoverable resources	Oil [10 ⁶ Sm ³] (>0.00)									
	Gas [10 ⁶ Sm ³] (>0.00)	0.97	1.53	1.88	2.96	0.17	0.24	0.34	0.56	
Reservoir Chrono (from)	Sinemurian	Reservoir litho (from)	Åre Fm	Source Rock, chrono primary	Sinemurian-Hetting	Source Rock, litho primary	Åre Fm	Seal, Chrono	Oxfordian-Tithonian	
Reservoir Chrono (to)	Sinemurian	Reservoir litho (to)	Åre Fm	Source Rock, chrono secondary		Source Rock, litho secondary		Seal, Litho	Upper Jurassic	
Probability fraction					<i>Comments: Retention (P4) is included in Trap (P2). For Parametres section, Base is Mean</i>					
Total (oil + gas + oil & gas case) (0.00-1.00)	0.38	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)	0.60	Trap (P2) (0.00-1.00)	0.63	Charge (P3) (0.00-1.00)	1.00	Retention (P4) (0.00-1.00)	1.00			
Parameters:		Low (P90)	Base	High (P10)						
Depth to top of prospect [m MSL] (> 0)			4500							
Area of closure [km ²] (> 0.0)	8.8		11.0		13.4					
Reservoir thickness [m] (> 0)	50		60		70					
HC column in prospect [m] (> 0)	133		197		267					
Gross rock vol. [10 ⁶ m ³] (> 0.000)	0.417		0.601		0.798					
Net / Gross [fraction] (0.00-1.00)	0.35		0.42		0.50					
Porosity [fraction] (0.00-1.00)	0.11		0.13		0.15					
Permeability [mD] (> 0.0)										
Water Saturation [fraction] (0.00-1.00)	0.40		0.48		0.55					
Bg [Rm3/Sm3] (< 1.0000)	0.0031		0.0032		0.0032					
1/Bo [Sm3/Rm3] (< 1.00)										
GOR, free gas [Sm ³ /Sm ³] (> 0)	2693		3454		4655					
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)	0.22		0.35		0.48					
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)	0.15		0.22		0.30					
Temperature, top res [°C] (<0)	153				For NPD use					
Pressure, top res [bar] (<0)	458				Intrapp. av.geolog.-init.	NOD will insert value	Registrert - init.	NPD will insert value	Kart oppdatert	NPD will insert value
Cut off criteria for NiG calculation	1 VCL<0.1	2 PHIE<0.4	3		Dato	NOD will insert value	Registrert Dato	NPD will insert value	Kart dato	NPD will insert value
								NPD will insert value	Kart nr	NPD will insert value

Top Hat Sør (lead)

Defined by a horst block to the southwest of the main Top Hat structure, with a small graben defining the spill point and separating the two segments. Resource potential is summarised in .

Top Hat Downflank (lead)

The southeastern extension of the Top Hat structure. The segment is defined by a subtle saddle point with its own separate crest. It shares the same spill point as Top Hat Tilje.

Antares (lead)

Jurassic horst block with up-dip potential from the dry 6406/3-7 well.

Migra (lead)

Downfaulted Jurassic structure from the Maria Field. Possible stacked Fangst and Båt Gp reservoirs.



5 Technical Assessment

The key prospect in the licence is the Top Hat Tilje prospect.

Thorough interpretation and the utilisation of various studies allowed for robust definition of the prospectivity in the PL1120 licence. Due to the elongated nature of the horst block and the integration of key analogous wells, resulted in a challenging development concept.

An economic analysis has been performed on the Top Hat Lower and Upper Tilje segments, however, the results were not considered economically robust to recommend a drill decision within the licence.



6 Conclusion

Following the 2020 APA licensing round, PL1120 was awarded in 2021 to DNO Norge AS (Operator), Harbour Energy Norge, Equinor and Vår Energi (Partners). The work commitment at the time of award was to acquire 3D seismic and G&G studies, prior to the initial drill or drop decision (DoD deadline 19 February 2025). ■

Leading up to the drill or drop decision, G&G studies (both internal and external) have been implemented to attempt to mitigate and mature the key prospect to a drillable candidate. Trap seal and reservoir quality are identified as the highest risks for the Top Hat prospect.

Based on the licence assessment the Top Hat prospect does not meet the requirements to make a positive drill decision in PL1120.

The licensees came to a unanimous decision to relinquish PL1120 and the relinquishment notification was submitted to authorities on the 19th February 2025 and approved by the authorities on the 11th March 2025.