

**Yumna Field, Block 50 Oman  
Update of  
Independent Reserves Audit Summary**

**March 2023**

***Confidential***

This summary Qualified Person's Report ("QPR") has been prepared by the Rex International Holding Group's in-house qualified person, Lars B. Hübert, CEO and Exploration Manager of Lime Petroleum AS located at Drammensveien 145A, N-0277 Oslo, Norway, and has been prepared in accordance with the applicable requirements in Practice Note 6.3 of the Singapore Exchange Securities Trading Limited's Mainboard Listing Rules.

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Lars B. Hübert  
Oslo, 2 March 2023

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## Summary

RPS Energy Consultants Ltd (“RPS”) prepared an independent QPR for the Yumna Field in Oman for Masirah Oil Ltd (“MOL” or the “Company”) dated 26 October 2020 (“RPS QPR”). An in-house summary QPR dated 5 March 2021 provided an update to the RPS QPR, and a subsequent update was issued on 24 February 2022 (“2022 Summary QPR”). This summary QPR provides a further update to the 2022 Summary QPR, accounting for the 12 months of production for the period from 1 January 2022 to 31 December 2022 and drilling of an additional production well in the Yumna Field.

This summary QPR is prepared in line with the standards set out under the Petroleum Resource Management System (“PRMS”) to include production from the Yumna 1, Yumna 2, Yumna 3, and Yumna 4 wells until 31 December 2022, in the Yumna Field. The RPS QPR thus provides the basis for the report, along with production data provided by MOL. MOL drilled the Yumna 4 production well in late 2022, and put it on production in January 2023. MOL’s internal work carried out throughout 2022 and into 2023 has provided an updated static and dynamic model with improved reservoir characterisation and updated volumetrics. The same model after calibration to historical production data was used to provide with production forecasts to estimate the remaining reserves under various development options as of 31 December 2022. However, further analysis of the seismic data, along with the new well data from Yumna 4 and the production data, have led to the expansion of the Yumna Field to the east with Possible Reserves.

The Yumna discovery was made in the GA South 1 well which was spudded in December 2013. The well tested a NE-trending fault-block in the Cretaceous and PreCambrian. The well encountered hydrocarbons in the Campanian Lower Aruma Sandstone Formation. The well was tested and flowed oil at a maximum rate of 3,481 stb/d. The oil density was light with 42° API. The first development well, Yumna 1, was spudded in December 2019 and completed in February 2020. The well was put on test production from the drilling rig, producing via a flexible flowline to a tanker moored some 500 metres away. In April 2020, production was transferred to a Mobile Offshore Production Unit (MOPU). Production continued throughout 2020 from Yumna 1. In December 2020, MOL commenced drilling operations with the Shelf Drilling Tenacious jack-up rig, to add on the Yumna 2 and Yumna 3 production wells. Yumna 2 was spudded on 10 December 2020 and was put on production on 23 January 2021. The well started production at a rate of 9,000 stb/d of oil. The rate was constrained by the size of the down-hole Electrical Submersible Pump installed in the well. Yumna 3 was spudded on 20 January 2021 and production commenced on 18 February 2021 at a rate of 12,984 stb/d of oil on natural flow through an 80/64” choke. Yumna 4 was spudded on 24 October 2022 and production commenced 2 January 2023 at a rate of 2,342.5 stb/d of oil on natural flow on a 32/64” choke.

The plan forward is to continue producing from the four wells whilst continuously optimising the production rates. Further development wells are being considered, in the northern and eastern part of the field.

In view of the field depletion through production since the publication of the RPS QPR in 2020 and the updated summary QPR in 2022, an update of the remaining reserves estimate is prudent. The STOIIP (stock tank oil initially in place) is updated based on the modelling work carried out in 2022. The reserves presented herein are based on new assumptions for economic cut-off.

As of 31 December 2022, the Yumna Field had produced 7.1 MMstb. Based on the recoverable reserves estimate from the 2022 internal work, the remaining reserves are presented in Table 1.

**Table 1 Yumna Field Summary of Oil Reserves as of 31 December 2022**

Category	Gross Attributable to Licence (MMstb) <sup>1,2</sup>	MOL Net Entitlement Volume <sup>2,3</sup>			Risk Factors <sup>6</sup>	Remarks
		Previous Report (MMstb) <sup>4</sup>	Current Report (MMstb) <sup>5</sup>	% Change from Previous Update		
<b>Reserves</b>						
<b>Low 1P</b>	5.6	2.7	3.6	+33%	N/A	Change due to production <sup>5</sup> , maturation of reserves and updated volumetrics
<b>Base 2P</b>	8.7	4.0	5.5	+38%	N/A	Change due to production <sup>5</sup> , maturation of reserves and updated volumetrics
<b>High 3P</b>	10.3	4.6	6.5	+41%	N/A	Change due to production <sup>5</sup> , maturation of reserves and updated volumetrics

1. Gross field Reserves (100% basis) after economic limit test as of 31 December 2022

2. Economic cut off year for the 1P, 2P and 3P reserves in 2028

3. Company net entitlement Reserves after economic limit test

4. Volume as at 31 December 2021

5. Volume after subtraction of net entitlement production of 850 MMstb from 1 January 2022 until 31 December 2022 plus upgrade and maturation of reserves

6. No risk is applied to Reserves

## Background

This summary QPR aims to provide updated estimates on the remaining reserves of the Yumna Field as at 31 December 2022. This summary QPR is based on the internal work done during 2022 and presents the reserves in the Yumna Field as at 31 December 2022.

Current ownership of MOL includes Rex International Holding Ltd (91.81%), Schroder & Co Banque S.A. (6.36%) and PETROCI (the National Oil Company of Côte D'Ivoire) (1.83%).

Table 2 gives a detailed description of the asset.

*Table 2 Yumna Field detailed description*

<b>Asset name/ Country</b>	<b>MOL interest (%)</b>	<b>Development Status</b>	<b>Licence expiry date</b>	<b>Licence Area</b>	<b>Type of mineral, oil or gas deposit</b>	<b>Remarks</b>
<b>Yumna Field, Oman</b>	100 %	Developed and producing	12 July 2030 or until the field waters out	Block 50, Oman	Oil Field	N/A

The Yumna Field lies within the Block 50 licence located on the eastern coast of the Sultanate of Oman (Figure 1), in a water depth of some 30 metres. The licence is owned and operated by MOL. The Yumna Field is the first discovery in Block 50 Oman and is located in the Masirah Graben geological feature. Further prospects are being evaluated within the licence area. The principal terms and conditions for the concession are discussed in detail in the RPS QPR, including fiscal conditions, environmental and rehabilitation requirements, abandonment costs and consents, and there have been no changes since.

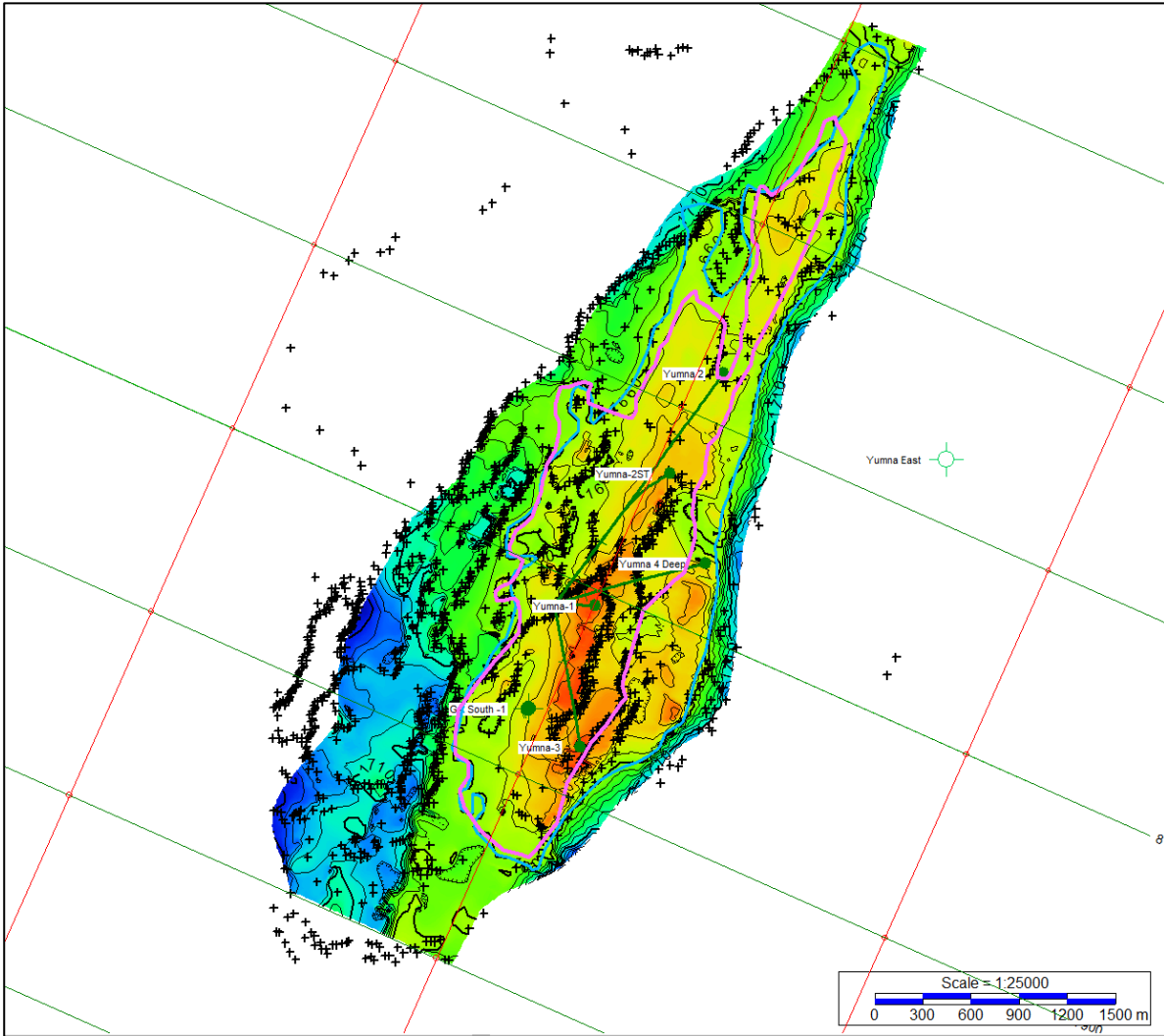


Figure 1 Map of the Yumna Field showing the producing well locations as well as the GA South 1 discovery well. Pink polygon is original (2020) field outline, blue polygon is updated field outline.

The development of estimated in place resource has been positive during the development of the field. From new well data, additional reserves have been identified and added to the STOIP. The development is summarised in Table 3. This shows a consistent improvement of the estimation and reduction in uncertainty of the volumes in place.

Table 3 Yumna Field STOIP and Reserve History

	Gross Attributable to Licence					
	STOIP (MMstb)			Reserves <sup>3</sup> (MMstb)		
	RPS 2020 <sup>1</sup>	End 2021 <sup>2</sup>	End 2022	RPS 2020 <sup>1</sup>	End 2021 <sup>2</sup>	End 2022
Low 1P	11.5	22.1	24.5	4.4	10.0	12.7
Base 2P	18.1	23.5	29.1	9.6	12.2	15.8
High 3P	26.7	24.5	32.1	14.6	13.3	17.4

<sup>1</sup> RPS Reserves Audit as at 30 June 2020 dated 26 October 2020 after Yumna Field had produced approximately 1.05 MMstb.

<sup>2</sup> 2022 Summary QPR dated 24 February 2022

<sup>3</sup> Volume before subtraction of gross production attributable to Licence

## Technical review

The RPS QPR dated 26 October 2020 has given a brief overview of the geological setting and history of the licence. The RPS QPR details the reserves as of 1 July 2020 and the 2022 Summary QPR gives an account of the operations and wells drilled in 2H 2020 and through 2021. This information is not repeated here. This report accounts for the 12 months of production for the period from 1 January 2022 to 31 December 2022.

During 2022, 1.308 MMstb gross oil was produced from the Yumna Field from three wells: Yumna 1, Yumna 2, and Yumna 3. Production rates were variable throughout the beginning of the year. However, after work on the wells later in the year, production rates for the field increased. The field has continued to experience the strong water drive from the aquifer. Based on the production rates and other production data, along with the strong aquifer and high reservoir permeability, it is concluded that the recovery factor is best reflected by the higher value in the 2022 reserves summary – 54%.

To accommodate higher production rates, the Mobile Offshore Production Unit (MOPU) was upgraded to increase the maximum capacity for liquid processing, and can now handle up to 40,000 bpd.

Yumna 4 was spudded on 24 October 2022 with a dual purpose. The well's first objective was to test the potential for production from the deeper Khufai Formation. Indications from the nearby GA South well, along with significant study of the Khufai Formation onshore Oman, suggested that the Khufai Formation some 1,000 metres beneath the Yumna Field's Aruma sandstone, could yield commercial production rates. The Yumna 4 well was designed to test this potential. The well was drilled directionally to the Northeast from the Yumna MOPU. Some 16m of core was taken in the Khufai Formation. It was the intention to take more core; however, the coring operations were difficult and a decision was made to stop. An attempt was made to acquire wireline data, but this was discontinued due to adverse hole conditions. The Khufai section was plugged, and the well was completed in the Aruma sandstone as a production well for the Yumna Field. Reservoir properties were found to be on par with other wells in the field. Production from Yumna 4 commenced on 2 January 2023 at a rate of 2,342.5 stb/d of oil on natural flow, along with 47.8 bbls of water, on a 32/64" choke.

Based on well data from Yumna 4 of the reservoir, the reservoir properties (porosity and permeability) appear to be in line with predictions. The reservoir thickness is roughly as predicted. The Yumna 4 well is the easternmost well in the Yumna Field, and suggests that the sandstone reservoir could extend farther east.

## Remaining Reserves

The remaining Yumna Field reserves are estimated based on the reservoir model presented in the RPS QPR, which carried reserves numbers with production up to 1 July 2020 and 2021, the in-house Summary QPR dated 5 March 2021, and the in-house summary dated 24 February 2022. The volume has thereafter been updated based on modelling work carried out in 2022, using new well data and production data during the course of 2022. The production data suggests a Recovery Factor of 54%, which is the high side of the analysis in the previous report. The production history thus supports upgrading the probable and possible reserves to proven, with a STOIP of 24.5 MMstb. New well data from Yumna 4, along with production data, especially from Yumna 3, supports extending the field to the east, towards the field's eastern main bounding fault. The previous interpretation suggested that this area was somewhat speculative, and was not included in the volumetrics. Thus, 5.6 MMstb have been added as probably reserves, with a further 2 MMstb as possible. As mentioned above, the recovery factor of 54% is found to be plausible as of 31 December 2022, 7.1 MMstb of oil had been



produced from the Yumna Field, with 1.308 MMstb produced from 1 January 2022 to 31 December 2022. The produced volumes have been subtracted from the updated STOIP volumes for each of the three cases (Low, Base, High) on a gross basis attributable to the licence, and on a net entitlement basis to MOL (Table 1). The MOL net entitlement basis is found after an economic limit test, with economic cut-off year for Low, Base, and High case at 2027. The remaining reserves are presented in Table 1 above.

## **Way forward**

Further development wells are currently being considered to more effectively drain the Yumna Field. Specifically, one well in the far northern part of the field, north of Yumna 2, and one in the eastern area, southeast of Yumna 4. Further prospects are also being considered elsewhere in the block.

## References

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## Glossary

bbls	barrels
bpd	barrels per day
mD	millidarcy (unit of rock permeability)
MMstb	million stock tank barrels
psi	pound-force per square inch (unit of pressure)
stb/d	stock tank barrels of oil per day
STOIIP	stock tank oil-initially-in-place
1P	Proven reserves have high degree of certainty to be recovered from reservoirs under existing conditions. There is relatively little risk associated with such reserves.
2P	Proven & Probable reserves have at least a 50% probability that reserves will be recovered. This is determined after analysing geological and engineering data.
3P	Proven, Probable & Possible reserves has a low degree of certainty to be recovered. There is relatively high risk associated with these reserves.