

Rafael Resource Update and Regional Exploration Potential

Buru Energy Limited (**Buru, Company**) (ASX: BRU) is pleased to provide an update in relation to its volumetric assessment of the Rafael gas and condensate accumulation and the positive implications for further exploration in the onshore Canning Basin of Western Australia.

Highlights

- *The latest results of the analysis of the 3D seismic survey over the Rafael gas and condensate discovery located in EP 428 (100% Buru) and EP 457 (60% Buru and Operator, 40% Rey Resources), have been incorporated into the estimates of Contingent Resources in the accumulation.*
- *The internal assessment has seen the Rafael Contingent Resource range tightened from previous estimates with the results increasing the gross recoverable 1C volumes to 85 Bscf of gas and 1.8 MMstb of condensate¹.*
- *The assessment increases confidence the 1C Contingent Resource will support the planned Phase 1 Rafael development via a competitive small-scale facility in the Kimberley aimed at supplying the local gas and condensate market.*
- *This analysis has confirmed that the Phase 1 development can be supported by the 1C Contingent Resource volume within the Location declared in EP 428 which is 100% owned by Buru.*
- *More detailed technical work on the Rafael accumulation is expected to provide additional insights into the 3C resource volume upside which has decreased following the recent analysis.*
- *Regional geological studies utilising the insights gained from the Rafael discovery have identified a suite of additional prospects that have the potential to support further staged developments in the Basin, including the potential for further exploration prospects similar to the Rafael Shallow oil prospect planned to be drilled later this year.*

Commenting on the results of the assessment, CEO Thomas Nador said:

"We are very pleased that Buru's current estimates of the Rafael 1C and 2C contingent resource volumes fully support our Phase 1 project that aims to deliver a source of competitive, lower emissions energy for the Kimberley.

Whilst the resource range has tightened, we remain confident that there is considerable upside to be appraised by the additional technical studies currently being undertaken. This is normally the case with the acquisition of substantial additional data sets.

¹ Refer to Attachment 1 at the end of this Release for important notices regarding the Contingent Resources, and disclosures under ASX Listing Rules 5.33.

Very importantly, the seismic signature of the Rafael accumulation on the 3D seismic data has allowed us to identify the regional potential for further accumulations on the primarily unexplored southern margin of the Fitzroy Trough. These anomalies have the potential for substantial additional volumes and will be the subject of continuing exploration effort.

Together with the planned restart of Ungani production and the planned drilling of the high impact Rafael Shallow and Mars exploration wells in 2024, Buru has a very exciting and high potential exploration portfolio underpinned by the Rafael conventional gas and condensate accumulation development plan."

Status of Rafael technical analysis

The final processing of the Rafael 3D volume has now been completed by Earth Signal Processing Ltd (Earth Signal) in Canada. This processing has included the completion of a Post Stack Depth Migration ("PSDM") volume which has been interpreted and provided a more definitive depth model of the structural form of the Rafael accumulation.

Complementing the PSDM volume, a specialist contractor has undertaken an independent velocity analysis that has provided calibration to the internal velocity models.

Additional geological technical analysis is ongoing including by specialist carbonate reservoir analysts Cambridge Carbonates whose work on cuttings samples has confirmed that the Rafael reservoir section was deposited in a similar depositional environment to the Ungani Field carbonate reservoirs. This study has also provided insights into dolomitic reservoir development and highlighted areas of potential improved reservoir characteristics which may aid selection of the appraisal and development drilling locations.

Given the excellent data quality of the PSDM 3D seismic volume, it will be possible to obtain further insights into the Rafael reservoir sequence using seismic inversion techniques and a specialist carbonate seismic stratigrapher has been engaged to interpret this inversion data. This interpretation is expected to highlight areas of the accumulation with the potential for additional vugular dolomitic porosity development as well as the potential for larger scale stratigraphic trapping mechanisms.

Insights into Rafael Ungani Dolomite volumetrics

The interpretation of the PSDM seismic volume in conjunction with the reservoir parameters that were derived from the Rafael 1 well data, and the learnings incorporated from a worldwide database of analogue carbonate reservoirs have been used to inform Buru's updated internal view of the resources of the Ungani Dolomite accumulation that was intersected, and production tested by the Rafael 1 well. The updated volumetric calculation of the accumulation is shown in Attachment 1.

The 1C and 2C volumes are robust and the 1C volume contained within the Location declared within the 100% Buru-owned EP 428 is considered to fully underpin the planned Phase 1 development of the Rafael resource via a competitive local, small scale LNG project to support the energy needs of the Kimberley which are currently reliant on either diesel or LNG trucked from the Pilbara.

It should be noted that the quantification of the 3C category volume is preliminary and subject to further refinement and ongoing analysis including from the seismic inversion analysis, particularly regarding reservoir net to gross and porosity distribution.

The previous independent resource estimate was undertaken prior to the Rafael 3D seismic survey and was based on legacy 2D seismic data mapping. The current estimates are based on the 3D seismic volume acquired by Buru.

The previous estimates and this review use probabilistic methods that utilise a statistical distribution range of values for each of the input variables for the calculation of resources. This method results in estimates of 1C, 2C and 3C contingent resources that are valid statistical estimates but have no specific physical realisation.

Regional exploration potential

The Rafael discovery has confirmed and extended the potential of the southern flank of the Fitzroy Trough to hold major hydrocarbon accumulations in the Ungani Dolomite. It also demonstrated that the Ungani Dolomite is present along the structural terraces flanking the Broome Platform, contrary to previous interpretations that it was not present in those areas.

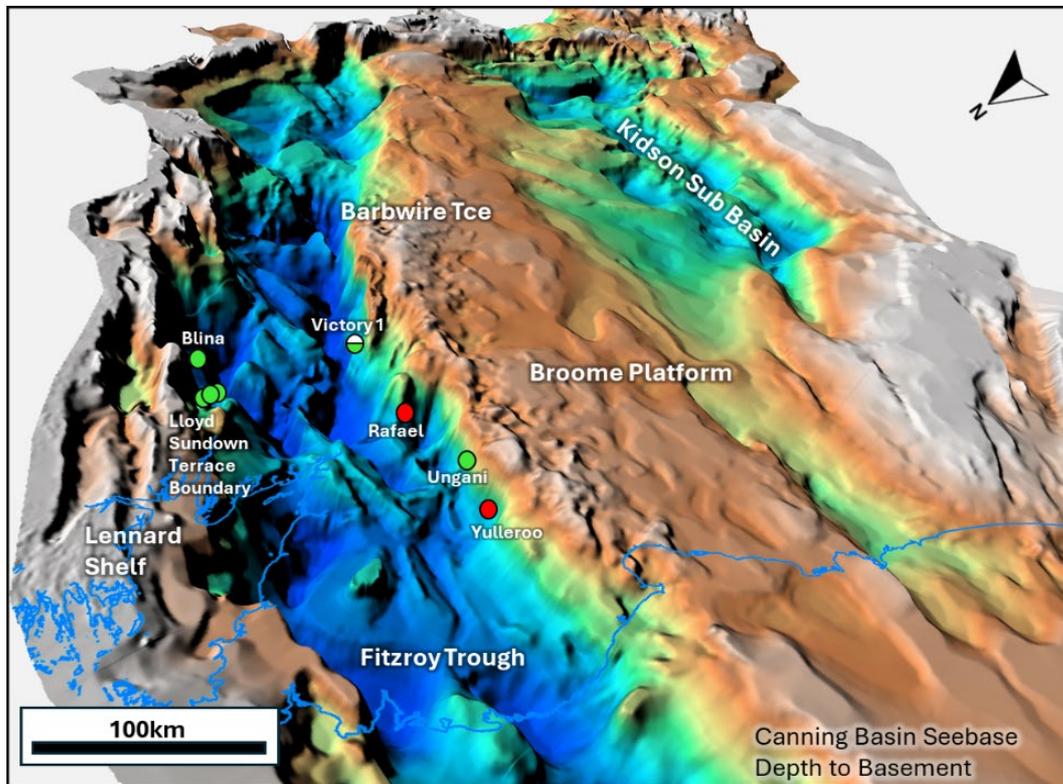
With this knowledge, the very distinctive seismic signature of the carbonate depositional system hosting the Rafael accumulation can now be identified in a number of areas along the basin edge on the existing sparse 2D seismic data.

The Rafael discovery has confirmed a major play fairway present over an extensive area along the southern basin margin, with multi-TCF gas and condensate potential in the deeper section, and light oil in the shallower areas.

The Rafael discovery has also confirmed that the hydrocarbon generative potential of the Devonian aged section for large volumes of both oil and gas continues along the southern flank of the basin. This also provides encouragement for shallow accumulations sourced from the deeper Devonian aged section similar to the closure that is planned to be tested by the Rafael Shallow exploration well later this year.

This southern flank of the basin has seen essentially no exploration for these plays except for the Victory 1 well drilled by Buru in 2015 which tantalisingly recovered oil from what is now interpreted to be potentially equivalent to the Ungani Dolomite section but was unable to be evaluated due to total loss of circulation while drilling.

These areas will be a focus going forward to provide potential for significant additions to the current resource inventory.



Map illustrating the oil and gas discoveries along the southern margin of the Fitzroy Trough.

Authorisation

This ASX announcement has been authorised for release by the Buru Board of Directors.

For further information, visit www.buruenergy.com or contact:

Thomas Nador, Chief Executive Officer

Telephone: +61 8 9215 1800

Freecall: 1800 337 330

Email: info@buruenergy.com



Attachment 1

Rafael Structure probabilistic Contingent Resources (as of 26 July 2024)

The Rafael accumulation lies principally in exploration permit EP 428 held 100% by Buru (over which a Location has been declared by DEMIRS) and is also interpreted to lie partly in EP 457 held 60% by Buru and 40% by Rey Resources. The net contingent resources in the following tables reflect these equities.

The following tables set out the gross resources in the accumulation and the resources net to Buru. The calculation of gross and net resources has been undertaken by Buru and has not been independently reviewed.

These resources can be classified as Contingent Resources. Contingent Resources are quantities of petroleum estimated as of a given date to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable due to one or more contingencies.

	Oil and Condensate (MMstb)			Gas (Bscf)		
	1C	2C	3C	1C	2C	3C
Gross Contingent Resources	1.8	4.5	10.6	85	220	523
Net Contingent Resources	1.6	3.6	8.1	76	176	401

1. These estimates are provided as of 26 July 2024.
2. Gross Contingent Resources represent a 100% total of estimated recoverable volumes within EP 428 and EP 457.
1. Net Contingent Resources represent Buru's share of the gross Contingent Resources based on its beneficial interest in EP 428, which is 100%, and EP 457, which is 60%, and the proportion of the volumes in the appropriate permit.
4. These are unrisks Contingent Resources and are sub-classified as Development Unclassified, with an 80% Chance of Development (COD) at the 1C level. Quantifying the COD requires consideration of both economic contingencies and other contingencies, such as legal, regulatory, market access, political, social license, internal and external approvals and commitment to project finance and development timing.
5. Resources volumes shown have had a shrinkage applied to account for removal of inert gases and CO₂ and include hydrocarbon gas only.
6. No allowance for fuel and flare volumes has been made.

The following statements are provided in accordance with the requirements of ASX Listing Rule 5.33:

- This evaluation is in relation to EP 428 and EP 457.
- The basis for confirming the existence of a significant quantity of potentially moveable hydrocarbons and the determination of a discovery is that gas and condensate have flowed to surface from the Rafael 1 well.
- The analytical procedures used to estimate the Contingent Resources are based on probabilistic simulation using ranges for each parameter of the volumetric equation. The output of this simulation is a range of original gas in place (OGIP) and gross Contingent Resources.
- The estimates of Contingent Resources were prepared by the use of appropriate geologic, petroleum engineering and evaluation principles and techniques that are in

accordance with practices generally recognised by the petroleum industry and in accordance with the June 2018 SPE/WPC/AAPG/ SPEE/SEG/SPWLA/EAGE Petroleum Resources Management System (PRMS).

- The key technical contingencies that prevent the Contingent Resources from being classified as petroleum reserves are acquisition of additional technical data to demonstrate producing rates and volumes that support commercial development and the necessary facilities and infrastructure to support the development plan associated with these Contingent Resources.

Previous estimates

The most recent statement of Ungani Dolomite resources for the Rafael accumulation is set out in ASX release of 13 February 2023 subsequent to Buru’s acquisition of Origin’s interests in the accumulation. These gross and net Contingent Resources were as set out below and were based on the evaluation by ERCE dated 12 April 2022 using probabilistic estimation methods, prior to the acquisition of the 3D seismic survey over the accumulation.

	Oil and Condensate (MMstb)			Gas (Bscf)		
	1C	2C	3C	1C	2C	3C
Gross Contingent Resources	1.2	5.3	20.5	59	260	1,024
Net Contingent Resources after Origin transaction	1.2	5.0	18.4	58	245	921

The Buru ASX Release of 26 April 2022 sets out in detail the methodology and results of the Gross Contingent Resources estimate above.

Qualified Petroleum Reserves and Resources Evaluator Statement

The estimates of Contingent Resources have been based on, and fairly represents, information and supporting documentation prepared under the supervision and review of Mr Eric Streitberg who is a Qualified Petroleum Resources Evaluator.

Mr Streitberg who is a Director of Buru Energy Limited is a Fellow of the Australian Institute of Mining and Metallurgy and the Australian Institute of Company Directors, and a member and Certified Petroleum Geologist of the American Association of Petroleum Geologists. He has over 40 years of relevant experience. Mr Streitberg consents to the inclusion of the information in this document.