

## Operational Update

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### Highlights

- *Interpretation of the Rafael 3D seismic data set identifies a high potential, shallow prospect in EP 428 (100% Buru), partly overlying the Rafael 1 gas and condensate accumulation, with planning underway for drilling of the prospect in the 2024 operating season.*
- *Named Rafael Shallow, the target reservoirs in the prospect are the Poole Sandstones and Grant Formation at less than 1,200 metres depth. The structure is of considerable size (18 sq kms), has over 125 metres of vertical closure, a robust top seal, and is an ideal candidate for low-cost drilling and potentially accelerated commercialisation.*
- *Buru's internal assessment of the Rafael Shallow prospective resource volumes indicates a range of between 3.2 MMstb (low estimate) and 79 MMstb (high estimate) of recoverable liquids with a Best Estimate of 19 million barrels recoverable.*

*Prospective Resources relate to the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s), and relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.*

- *Partner selection process for Buru's 100% owned Rafael conventional gas and condensate discovery and other interests in the Canning Basin deferred while specialist technical evaluations are completed on the Rafael 3D seismic data and regional reservoir development, resulting in a delay of on-ground Rafael appraisal activity to the 2025 operating season.*
- *Rafael Phase 1 development pre-Front End Engineering Design (pre-FEED) work completed on budget and schedule, with further work identifying potential for a smaller footprint and lower capital cost development project to monetise Rafael gas and condensate in shorter time frames.*
- *Engagement with several third parties on the forward plan for the Ungani oilfield in Production Licence L 20 and L 21 (100% Buru) continues, including an option to drill a shallow Ungani North Reeves sandstone formation well (Mars) in the same program as the Rafael Shallow exploration well.*

Buru Energy Limited (**Buru, Company**) is pleased to provide the following update in relation to recent activities.

## **Commenting on the operational update, CEO Thomas Nador said:**

*"The acquisition of the Rafael 3D seismic survey has provided valuable insights into both the Rafael gas and condensate accumulation, that was the survey's main target, as well as the prospectivity of the broader Rafael region.*

*These prospectivity insights include a high potential shallow clastic reservoir prospect, as well as an enhancement of the prospectivity of the Ungani Dolomite in separate structures adjacent to Rafael 1. This has the potential to confirm high volume gas and condensate targets as follow-ups to the Rafael discovery.*

*We are currently interpreting in-house the insights from the 3D seismic survey on the Rafael accumulation, and specialised consultants are also conducting additional work on reservoir quality, genesis, and the internal geometry and stratigraphy of the reservoir.*

*Based on feedback from parties involved in the partner selection process, we have decided to temporarily suspend the partner selection process until the technical work is completed. This will allow interested parties to conduct additional due diligence on the enhanced data.*

*Due to the additional technical work, the subsequent due diligence period and commercial negotiations, the conclusion of the process will be delayed from the original proposed timetable. As a result, on-ground appraisal related activities will be deferred until the 2025 Canning Basin field season.*

*However, with the potential to drill the Rafael Shallow prospect later this year with a smaller rig than would be needed for a Rafael deep appraisal well, and the added potential of being able to cost effectively drill the Mars well, we are planning to keep our appraisal and exploration momentum going.*

*We are also actively working to reduce capital costs and time frames for the initial Rafael development with additional options to the Phase 1 program being developed. The timeline to first sales for this further optimised development concept would not be affected by the delay in the Rafael deep gas appraisal program.*

*Overall, we have been highly engaged in all aspects of the business and are excited about the opportunity to create near-term value through a cost-effective and potentially high impact shallow drilling program."*

## **Rafael gas and condensate accumulation partner selection**

As previously reported, a strategic partner selection process has been underway for the funding of the appraisal program of the Rafael gas and condensate discovery. In support of this process, the Company has completed a 3D seismic survey over the accumulation and surrounding areas and is currently in the final stages of the processing and subsequent interpretation of this data.

The timing of the partner selection process has been driven by the objective of undertaking an appraisal drilling program on the Rafael accumulation during this year's Canning Basin operating season. Preparations for the drilling program, including well design, planning and the strategic purchase of long lead well equipment items have been completed to ensure the drilling program can be undertaken in an appropriate time frame as required.

What has become apparent from discussions with potential partners is that more specialised technical work on the 3D seismic data set and work on reservoir quality and distribution currently being undertaken by Cambridge Carbonates Ltd. needs to be completed before any potential partners are able to complete technical due diligence and undertake any subsequent commercial negotiations.

This will result in the deferral of the Rafael gas and condensate appraisal drilling program until the 2025 operating season. The Company's technical team and consultants are focused on completing this further evaluation as soon as practicable ahead of re-engaging with potential partners.

Interpretation of the 3D seismic data to date has prioritised the evaluation of the 1C contingent resource volume, with work confirming with high confidence that recoverable gas and condensate volumes at the 1C level will support a Rafael Phase 1 development. Further work, employing more specialised seismic interpretation techniques and reservoir studies are continuing on the 2C and 3C contingent resource volumes.

The identification of the high potential Rafael Shallow prospect as part of the interpretation of the 3D data set has the potential to add significant value to Buru's portfolio, and as such any future commercial transaction on Buru's 100% owned EP 428 permit will need to incorporate this appropriately.

### **Rafael Shallow prospect**

Interpretation of the current Rafael 3D volume has identified a highly prospective closure in the shallow geological section partly overlying the Rafael structure that was not apparent on the wide spaced legacy 2D data. The structure is of considerable size (18 sq kms) and has over 125 metres of vertical closure. Refer to Figure 1 and Figure 2 for seismic and depth structure maps respectively.

The target reservoirs in the closure are the Poole Sandstones and Grant Formation at less than 1,200 metres depth sealed by the thick organic rich shales of the regionally extensive Noonkanbah Formation. The Poole and Grant reservoirs are clastic (sandstone) reservoirs similar to the previously discovered shallow oil pools on the Lennard Shelf in the vicinity of the legacy Blina Oilfield.

This is a new prospect type for the Canning Basin, and it is considered to have potential for regionally significant volumes of liquids.

The Prospective Resources of the Rafael Shallow prospect as determined by Buru are set out below. The Prospective Resources are in Exploration Permit EP 428 held 100% by Buru:

Prospective Resources	Low	Best	High
Recoverable Liquids (million barrels)	3.2	19	79

Prospective Resources relate to the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the

existence of a significant quantity of potentially moveable hydrocarbons. Further information on the above prospective resources as required under ASX Listing Rule 5 is included in Attachment 1 of this ASX release.

The target formations are at a depth that can be safely and effectively drilled by a small mobile rig similar to that used to drill a number of the Ungani wells and Canning Basin exploration wells at low cost.

The Company is currently engaged with rig vendors and is confident that a suitable rig will be available to drill the prospect during the 2024 operating season.

The drilling of the prospect is subject to the usual regulatory and other stakeholder approvals.

In the interest of prudent capital management across all the projects that the Company is managing, funding partners will be sought to participate in the drilling of this prospect.

### **Rafael Phase 1 development activity**

The pre-Front End Engineering Design (pre-FEED) package for the Rafael Phase 1 development was delivered to Buru by GHD Pty Ltd on budget and schedule. The study has delivered an added level of design maturity, and associated cost and schedule information that underpins confidence in the commercialisation pathway for Rafael gas and condensate.

The engineering concept for the Rafael Phase 1 reference case development includes a small footprint, scalable, Kimberley based hybrid gas to power and renewables project based on the already defined low volume estimates of the Rafael contingent resource. This project is designed to meet the forecast energy needs of the Kimberley, significantly reducing the reliance on imported LNG and diesel fuel to support electricity generation, and the broader energy needs of the region.

In addition to the work by GHD Pty Ltd, ongoing value enhancement work by Buru and third-party technology providers has identified the potential for an even smaller footprint and significantly lower capital cost development project to monetise the Rafael gas and condensate resource via highly modularised Liquefied Natural Gas technology. Buru will continue to refine the development concepts to support a decision to enter FEED in 2025.

### **Ungani asset update**

The Company has been engaging with several parties in relation to the forward plan for the Ungani Oilfield and is currently evaluating proposals received from parties to participate in the asset.

These proposals have included discussions about the drilling of the Mars exploration well. This well was proposed to the previous joint venture but approval was not obtained due to budgetary constraints.

The well is targeting a 3D-defined trap that is up-dip from oil shows within the clastic Reeves Formation encountered in the Ungani North 1 well. Production from the same formation is proven in an adjacent structure to the south, where Ungani Far West 1 successfully completed a short-term production test of an oil pool in the Reeves.



The potential for a substantial additional oil accumulation adjacent to the existing Ungani facilities provides a strong incentive to revisit the drilling of the well in light of the potential availability of a smaller rig for the Rafael Shallow drilling program that would also be able to cost effectively drill the Mars well.

The third-party proposals currently under consideration include in some cases the drilling of the Mars well. Depending on the outcome of these discussions funding partners may also be sought for the drilling of this well in line with the Company's capital management strategy.

## Authorisation

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

For further information, visit [www.buruenergy.com](http://www.buruenergy.com) or contact:

Thomas Nador, Chief Executive Officer

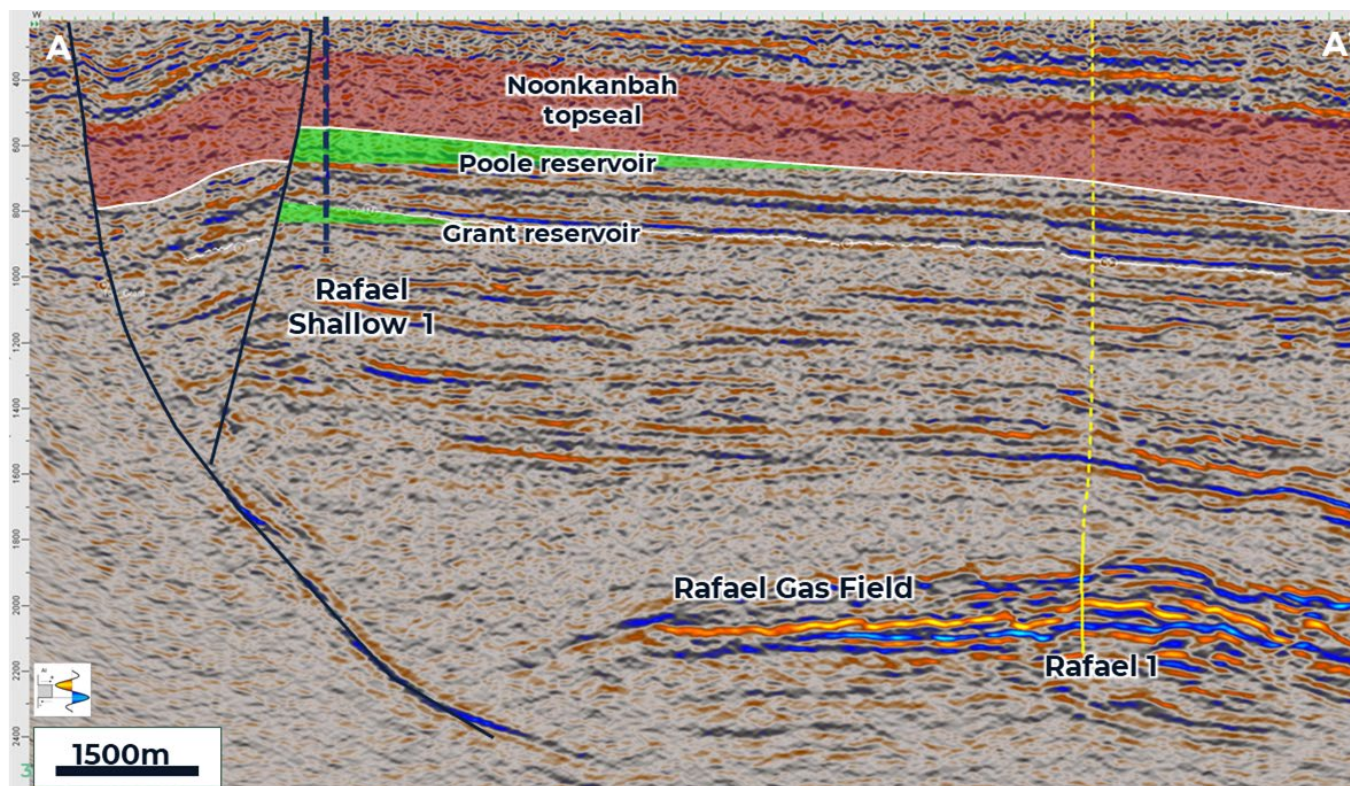
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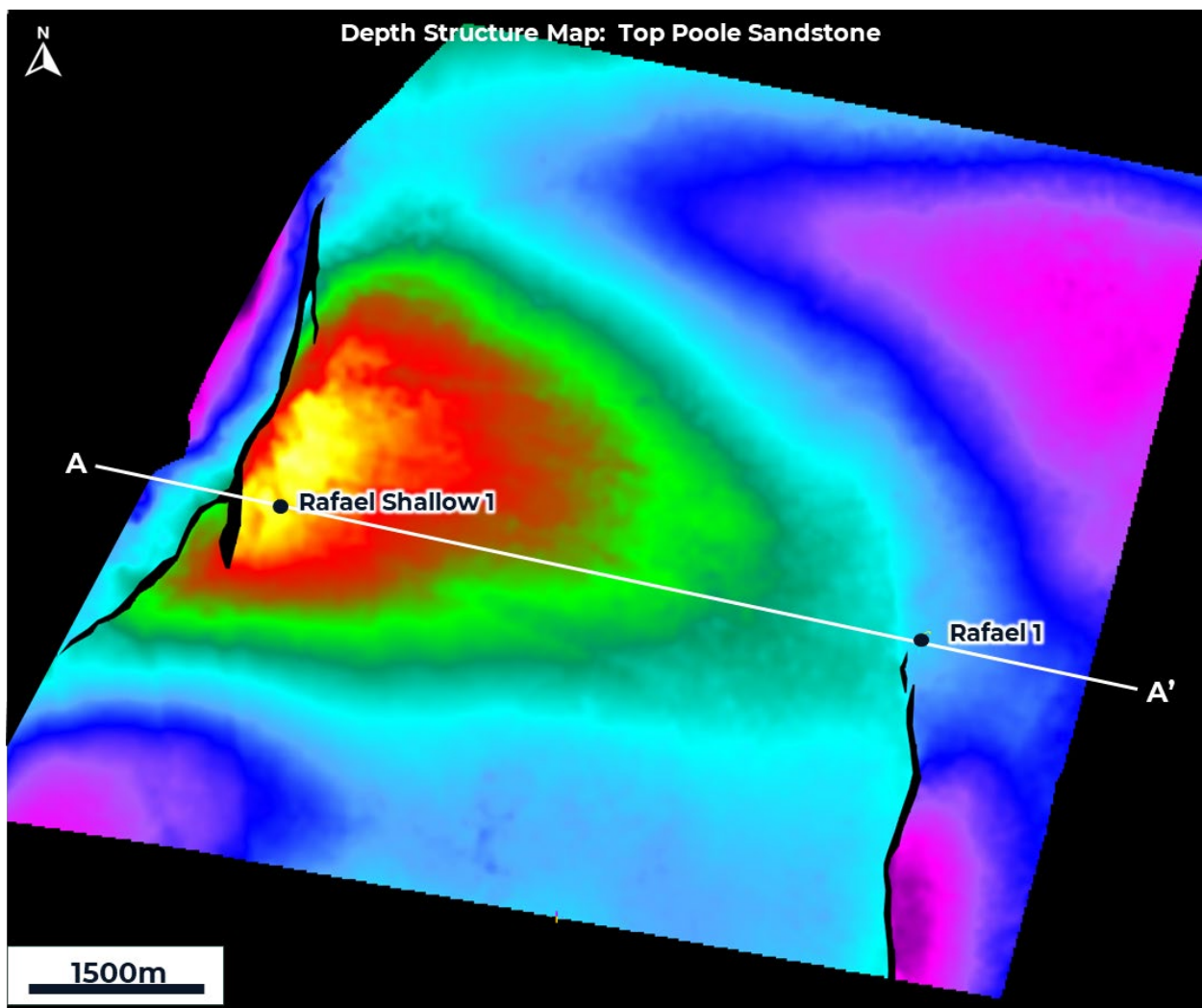
Email: [info@buruenergy.com](mailto:info@buruenergy.com)



**Figure 1 – Rafael Shallow Seismic Section extracted from 3D volume**



**Figure 2 – Rafael Shallow Depth Structure**



## Attachment 1

### Further information in accordance with ASX Listing Rule 5

- The estimated prospective resources in this ASX release are as at 23 April 2024.
- The probabilistic method has been used to estimate the prospective resources.
- The Rafael Shallow prospect is a feature that has been sufficiently well defined through analysis of geological and geophysical data, and is a drillable target.
- Further evaluation of this prospect will entail the drilling of the Rafael Shallow 1 well, currently proposed for the 2024 Canning Basin operating season.
- Prospective resources reported in this ASX release are Gross Unrisked Prospective Resources as they are 100% of the volumes estimated to be recoverable from an accumulation and have not been multiplied by the geological chance of discovery or the chance of development, as defined under SPE PRMS.
- The estimate of the chance of discovery of the "Best Estimate" of prospective resources is 24%. The chance of development cannot be estimated at this time until the size of the resource (if any) has been quantified. If an outcome of the Best Estimate is realised the chance of development is expected to be very high.

There are numerous uncertainties inherent in estimating reserves and resources, and in projecting future production, development expenditures, operating expenses and cash flows. Oil and gas reserve engineering and resource assessment must be recognised as a subjective process of estimating subsurface accumulations of oil and gas that cannot be measured in an exact way.

### **Qualified Petroleum Reserves and Resources Evaluator Statement**

The estimates of Prospective Resources have been based on, and fairly represents, information and supporting documentation prepared by 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.