

## Operations Update

Buru Energy Limited (Buru) (ASX: BRU) is pleased to provide the following update on its operations and on its gas and oil programs in the Canning Superbasin.

## Highlights

### Gas Program

- Further testing operations at the Asgard 1 gas well have provided additional high quality data confirming the potential of the Laurel tight gas accumulation and providing a path forward for further appraisal.
- Submission of the Discovery Assessment Report for the Asgard/Valhalla accumulation accepted by DMP. This is a necessary next step to obtaining further title after the recent signing of the land use agreements with the Traditional Owners.
- Application accepted by DMP for a Special Prospecting Authority over the gas accumulation extent to the south of the EP 371 permit.

### Oil program

- Preparation for potential Ungani oil production restart proceeding well, with preliminary engineering work completed and potential export solutions being evaluated.
- Heritage clearances underway for conventional oil drilling locations on the Ungani trend.
- Expressions of interest called for supply of a drilling rig for the oil exploration program.
- Regional work underway on the Lennard Shelf to quantify the potential for Ungani Dolomite oil prospects on the north side of the Basin.

### Corporate

- Buru's recent "Sundowner" function in Broome included a demonstration of the safety of the injection fluid used in the 2015 frac program, with the Chairman and several attendees drinking a sample.

## Gas program update

### Asgard flow test

#### Operations

As part of the recent suspension program for the Asgard 1 well, the opportunity was taken to directly measure flow rates from various zones using a technically advanced Schlumberger VX multi phase flow meter.

This system enables gas flow rates and well stream composition to be measured without a separator system. It is a very cost effective way to gather data and is its first application onshore in Western Australia.

As the vertical wells are still recovering the injected fluid, flow rates are suppressed by the returning fluid columns. However, rates varied from over 3 mmcf/gpd to continuous rates of up to 100,000 cf/gpd in individual zones. Most importantly, the well was continually flowing gas and returning stimulation fluid, demonstrating the potential for long term deliverability. It is expected that the data from this flow period will allow correlation of the previous flow results with more certainty.

As part of the program, a downhole pressure survey confirmed the overpressure gradient of the reservoir as in excess of 0.6 psi/ft. These values are associated with the “sweet spot” for unconventional gas developments and bode well for future well performance.

Analysis of the gas composition from surface samples from the various zones is ongoing but is expected to confirm the preliminary results obtained from the earlier flow periods of high quality, liquid rich gas.

As for the previous program, the Noonkanbah community provided logistic support, including field assistance and camp services.



*Testing Operations at Asgard 1*



*Buru Chairman and Noonkanbah site crew at Asgard camp site*

## **Integrated results**

The integration of the geology and production data results to date have also now identified a number of zones with higher potential in the overall gas column. The recent production testing and mapping has also confirmed the previously interpreted continuous nature of the accumulation across the area.

Production performance indicates that in common with other basins in Australia, and with North American experience, commingling numerous vertical well zones during flowback is not an effective production strategy for most unconventional accumulations. North American experience demonstrates that a number of stimulations along a horizontal wellbore in key geological formations is the optimal process for commercialisation of unconventional plays with thick hydrocarbon columns.

Results to date give high confidence that a horizontal well in these high graded zones would produce gas at commercial rates, and planning for a well with a horizontal section to test the flow potential of specific zones is currently in progress.

## **Discovery Report**

A Discovery Assessment Report (DAR) has now been submitted to Department of Mines and Petroleum (DMP) for the petroleum pool confirmed by the Valhalla North and Asgard well stimulations. Under the petroleum legislation in Western Australia it is necessary to provide the DMP with a DAR prior to making an application for a Location, and from that, any subsequent titles. DMP have informed the JV that the report meets the requirements of the applicable regulations.

## Status of agreements

As previously reported the joint venture has entered into agreements with the Native Title Parties in the area of the Valhalla and Asgard operations. The status of the two agreements is as follows:

### Yungngora ILUA (Noonkanbah Station)

On 5 September 2016, the JV and Yungngora Aboriginal Corporation RNTBC executed an Indigenous Land Use Agreement (Yungngora ILUA) in relation to the land within Exploration Permit EP371 in the area of the Noonkanbah Pastoral Station. The parties are now proceeding to have the Yungngora ILUA registered as an ILUA with the National Native Title Tribunal (NNTT) which is expected to take about 3 months.

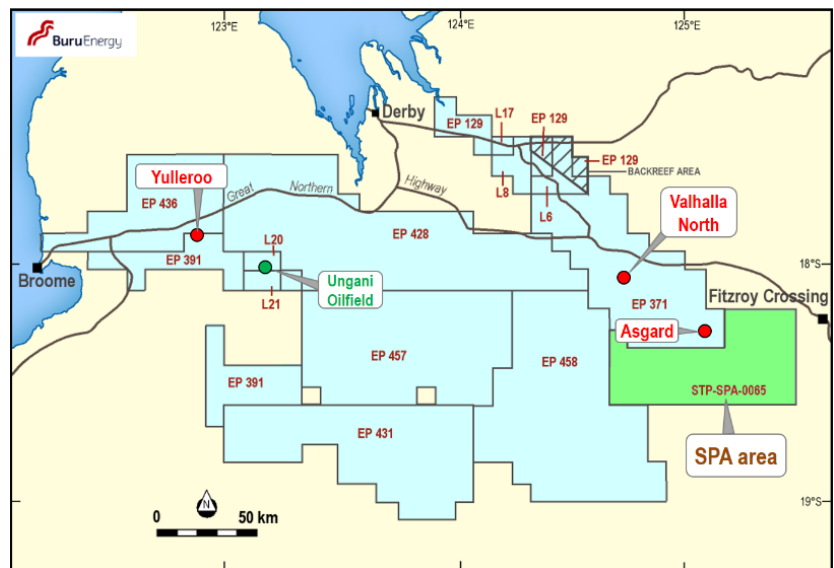
### Warlangurru LAUA

On 25 October 2016, the JV and Warlangurru People executed a Land Access and Use Agreement (LAUA) in relation to the land within Exploration Permit EP371 that overlaps the Warlangurru People's application for native title in Federal Court WAD 509/2015, also known as the Warlangurru 1 claim. Under the LAUA, the Warlangurru People will support future grants of tenure required for the further development of the gas resources in the area and no further registration of the agreement needs to be undertaken.

## SPA

In July 2016, the EP371 JV parties lodged application STP-SPA-0065 for a special prospecting authority with acreage option (SPA-AO).

The SPA covers the area to the south of EP 371 where it is interpreted there is the extension of the Valhalla/Asgard accumulation. The JV intend to undertake the Fitzroy Airborne PTEM Survey over this area once the required Native Title matters are completed.



## Oil Program update

### Ungani restart

Systematic progress is being made on preparing for the potential restart of oil production from the Ungani Oilfield. The restart is conditional on the completion of the operational and commercial analysis currently being undertaken, and a cost effective export solution.

Principal components identified for a "future proofed" restart include the installation of an artificial lift system, which will require a workover of the wells and the installation of electric submersible pumps (ESP's). The ESP's will also require upgrades to control systems and electrical generation capacity. The fluid handling system and storage tanks will also need to be upgraded for the higher volumes expected to be produced with artificial lift.

Momentum Engineering have been commissioned to undertake a scoping review of the upgrades including indicative costings and initial design work, and this initial work has now been completed.

A fluid recycle test has also been undertaken on the lower water bearing zone in Ungani Far West 1 and this provided confidence in relation to the re-injection of produced water from the field into the same reservoir system.

The Company is continuing its review of alternative export solutions for Ungani crude oil.

## Exploration forward program

The mapping of the 3D seismic surveys on the Ungani trend has identified a suite of high prospectivity conventional oil prospects. These have now been high graded and the Joint Venture has requested heritage surveys be undertaken on a number of these prospects by the appropriate Yawuru and Nyikina Mangala heritage survey teams.

The company has also called for an expressions of interest for a drilling rig suitable for the drilling of these prospects.

In addition to the activity on its joint venture held permits, the Company is also undertaking a review of its 100% held Lennard Shelf acreage including the re-interpretation of the carbonate sections in light of the experience on the other side of the basin with the Ungani Dolomite. This is an oily area with the potential for substantial prospects to be identified.

## Corporate

The Company recently held a “Sundowner” in Broome which was well attended by the Broome community and traditional owners from the Noonkanbah and Looma communities. Buru’s Executive Chairman and a number of attendees also drank a sample of the injection fluid used for the Valhalla North 1 and Asgard 1 stimulation programs, as a demonstration to dispel the mis-information from activists that the frac injection fluid is made up of “toxic chemicals”.

## Buru’s Executive Chairman, Eric Streitberg said:

*“The recent work on Asgard has confirmed the potential of the Laurel gas resource and helped establish a clear way forward for the commercialisation of the project.*

*Our oil portfolio is very exciting, with the Ungani restart program planning coming together well, good progress being made on getting ready for the next oil drilling exploration program, and the oil price showing some strength.*

*On behalf of the Board I would also like to thank all our shareholders for their patience during these challenging times and wish them the best for a happy and safe Christmas. We all look forward to a prosperous New Year.”*

Visit [www.buruenergy.com](http://www.buruenergy.com) for information on Buru Energy’s current and future activities.

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## **About Buru Energy**

Buru Energy Limited (ASX: BRU) is a Western Australian oil and gas exploration and production company headquartered in Perth with an operational office in Broome. The Company's petroleum assets and tenements are located onshore in the Canning Basin in the southwest Kimberley region of Western Australia. Its flagship high quality conventional Ungani Oilfield project is owned in 50/50 joint venture with Diamond Resources (Fitzroy) Pty Ltd. As well as Ungani, the Company's portfolio includes potentially world class tight gas resources in partnership with Diamond Resources (Canning) Pty Ltd.

The Company's goal is to deliver material benefits to its shareholders, the State of Western Australia, the Traditional Owners of the areas in which it operates, and the Kimberley community, by successfully exploring for and developing the petroleum resources of the Canning Basin in an environmentally and culturally sensitive manner.

## **Competent Persons Statement**

Except where otherwise noted, information in this release related to exploration and production results and petroleum resources is based on information compiled by Eric Streitberg who is an employee of Buru Energy Limited. Mr Streitberg 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.