

## ASX ANNOUNCEMENT (ASX: BRU)      7 May 2012

### Independent Resource Assessment Valhalla Wet Gas Accumulation Canning Superbasin

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Buru Energy Limited is pleased to announce that McDaniel & Associates Consultants Ltd (“**McDaniel**”), a specialist North American tight gas and unconventional resource assessment consulting group, have now completed an independent assessment of the prospective resources of the Laurel Formation in the Valhalla area of the Canning Superbasin. This independent assessment has confirmed Buru’s view that the Valhalla area contains a regionally significant multi TCF<sup>1</sup> wet gas accumulation.

#### Highlights

- McDaniel are of the opinion that the Valhalla accumulation, within Buru’s permits in the Valhalla area, contains a mean<sup>2</sup> unrisks gross recoverable volume of 15 TCF of gas and 432 million barrels of liquids (condensate and LPG). On a risks basis the mean gross recoverable volumes are 6.5 TCF of gas and 187 million barrels of hydrocarbon liquids, within the assessment area of the Buru permits.
- McDaniel have also confirmed that the Laurel Formation in the Valhalla area has the characteristics of a Basin Centred Gas Accumulation (“**BCGA**”). This type of accumulation is a different, and potentially more productive and commercially attractive style of accumulation than traditional “shale” plays.
- McDaniel’s unrisks high estimates, for the gross recoverable volumes for the accumulation on Buru’s permits in the Valhalla area, are in excess of 33 TCF of gas, and one billion barrels of hydrocarbon liquids.
- The resources estimated by McDaniel are consistent with Buru’s previously announced estimates of the potential recoverable volumes from the Valhalla area. Full details of the range of resources estimated by McDaniel are set out in the table below.

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<sup>1</sup> Trillions of cubic feet.

<sup>2</sup> The mean is the average of the probabilistic resource distribution.

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- The extent of the accumulation and the potential for volumes to be proven to be greater than the mean volumes will be further tested by the imminent Paradise-1 well deepening operation, and the planned drilling of the Asgard-1 well some 35 kilometres to the southeast of the current Valhalla wells. The drilling of the Asgard-1 well is currently subject to receipt of all necessary approvals.
- The confirmation of a large prospective resource at Valhalla in a potential BCGA in the Laurel Formation, and the recent focus by international majors ConocoPhillips and Hess Corporation on the separate Goldwyer Shale, the principal, and as yet largely unevaluated shale play in the Superbasin, underscores the conclusions by the United States Energy Information Agency (“EIA”) in its April 2011 report, that the Canning Superbasin is Australia’s most prospective area for unconventional hydrocarbons.

### **Resource Assessment**

The gross estimated recoverable volumes of prospective resources<sup>3</sup> for the Valhalla accumulation on Buru’s permits, as determined by McDaniel, are summarised in the following table:

Product	Unrisked				Risked
	Low Case (MMbbl/BCF)	Median (MMbbl/BCF)	Mean (MMbbl/BCF)	High (MMbbl/BCF)	Mean (MMbbl/BCF)
Condensate	36	224	432	1,025	187
Natural Gas	2,326	9,858	15,051	33,409	6,502
<b>Total BOE<sup>4</sup></b>	<b>423</b>	<b>1,867</b>	<b>2,941</b>	<b>6,594</b>	<b>1,270</b>

Buru’s working interests in the permits across which the Valhalla accumulation is currently interpreted by McDaniel to be present, are as follows.

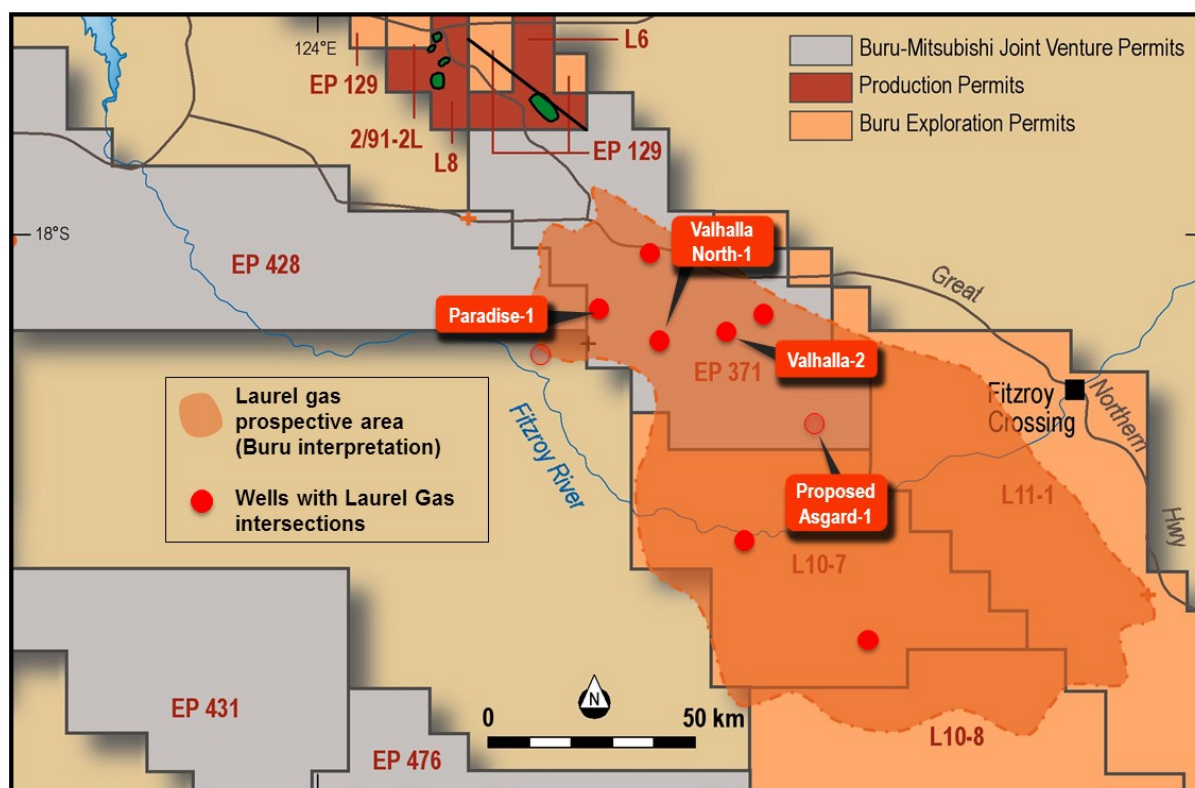
Permit / Application	Buru Interest
EP 371	50%
EP 428	50%
L10-7	100%
L10-8	100%
L11-1	100%

<sup>3</sup> The Society of Petroleum Engineers – Petroleum Resource Management System defines Prospective Resources as those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity. This definition is used in this release.

<sup>4</sup> Barrels of oil equivalent, gas converted at 6 mcf per barrel of oil on an energy basis.

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The following map shows the interpretation of the extent of the accumulation based on current well data.



On the basis of these current equities in the permits and applications, McDaniel have estimated, using probabilistic methods, the prospective resources for the Valhalla accumulation net to Buru. These are as follows:

Product	Unrisked				Risked
	Low Case (MMbbl/BCF)	Median (MMbbl/BCF)	Mean (MMbbl/BCF)	High (MMbbl/BCF)	Mean (MMbbl/BCF)
Condensate	18	135	259	718	112
Natural Gas	1,163	5,915	9,031	23,386	3,901
<b>Total BOE</b>	<b>212</b>	<b>1,120</b>	<b>1,765</b>	<b>4,615</b>	<b>762</b>

### **Background and geological analysis**

The Valhalla accumulation is located within the Canning Superbasin in the southwest Kimberley region of Western Australia, approximately 2,300 kilometres north of Perth. It potentially extends across exploration permits EP 371 and EP 428 and application areas L10-7, L10-8 and L11-1 in which Buru has equity interests of between 50% and 100%.

A number of wells have been drilled in the Valhalla area by Buru and by previous holders of the acreage. Buru has acquired an extensive suite of logs and sidewall core samples and conducted comprehensive tight rock analysis to support the interpretation of the presence of a continuous gas accumulation, or BCGA, within the Laurel Formation in the Fitzroy Trough.

The primary data used by McDaniel for its assessment included all of the data acquired by Buru, and consisted of digital well logs for eight wells in the Fitzroy Trough, core analysis, tight rock analysis, well test information, geochemical and pressure analysis and digital time and depth surfaces for the main seismic horizons.

### **Significance of BCGA accumulations**

BCGA's are regionally pervasive gas-saturated reservoirs, containing abnormally pressured gas. The SPE-PRMS<sup>5</sup> guidelines highlight four key elements that define a BCGA:

- abnormal pressure;
- low permeability;
- continuous gas saturation; and
- no down-dip water leg.

These geological signatures appear to be present in the Valhalla accumulation and, importantly, the estimate by McDaniel of the resources in the accumulation was confined to the interpreted abnormally pressured section. There is considerable potential for additional resources in conventional accumulations in the shallower, normally pressured section which is gas saturated over large areas. These normally pressured sections will be tested as part of the Paradise-1 deepening operation.

### **Forward Plan for Valhalla Accumulation**

To convert the identified prospective resources to reserves will require additional data to be acquired, and drilling to be carried out, including vertical and horizontal wells, together with extended production tests to prove commercial flow rates. Given the results of the Yulleroo-2 gas flows from the Laurel Formation hydraulic stimulation operation, and the natural gas flows encountered while drilling Valhalla-2, Buru is optimistic that these flow rates can be demonstrated.

There is extensive production from tight gas reservoirs internationally, and in the Cooper Basin in Australia, and there is a well understood and systematic process that can be undertaken to progress the resources from these early stages of evaluation to commercial production.

The next stage of this process for the Valhalla accumulation is to drill additional reservoir penetrations, with the next two wells currently planned by Buru being the imminent deepening of the Paradise-1 well and the drilling of Asgard-1 (once all relevant approvals are obtained). The analysis of the extensive data sets intended to be acquired in these wells will allow a forward program to be developed for 2013 which may include trial reservoir stimulation activity.

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<sup>5</sup> Society of Petroleum Engineers – Petroleum Resource Management System

**Buru's Executive Director, Mr Eric Streitberg, commented on the results of the McDaniel review report:**

*"We are extremely pleased with the results of the McDaniel review which validates Buru's assessment of the very significant potential of the Valhalla accumulation. There is also the possibility that this accumulation is both basin centred and basin wide, and the soon to be spudded Yulleroo-3 well on the Yulleroo tight gas accumulation has the potential to demonstrate how widespread the accumulation could be.*

*This independent validation of the accumulation only reinforces our views, and those of other parties, that the Superbasin has the potential, on the basis of the BCGA alone, to hold gas quantities equal to a significant part of the reserves of the offshore Western Australian gas industry. The review has also confirmed the very considerable potential for condensate and LPG recovery which would add significantly to the value of the gas. This is in addition to the very significant conventional oil potential of the Superbasin which has been confirmed by our recent Ungani oil discovery.*

*As we have previously stated, it is important for our shareholders, and for Government, that the gas resources of the Canning Superbasin are properly recognised in the context of both Buru, and of the energy landscape of Western Australia, and this external validation is a further step in that process.*

*Buru's portfolio now includes the very exciting conventional oil resources at the Ungani Field with its surrounding conventional oil exploration potential; the imminent appraisal of the contingent gas and oil resources of the Yulleroo Field; the Valhalla BCGA appraisal and the extensive Goldwyer Shale unconventional oil prospectivity on Buru's acreage which is being appraised in adjacent permits by other operators in the Superbasin."*

### **McDaniel**

McDaniel & Associates is one of the world's leading petroleum consulting firms based in Calgary, Canada, and specialising in geological studies, reserves evaluations, resource assessments, economic evaluations and petroleum engineering studies (<http://www.mcdan.com/>). McDaniel & Associates has developed a unique technical understanding of the economics and engineering aspects of evaluating resource plays.

The statements in this release relating to reserves and resources for the Valhalla accumulation as of 31 March 2012, are based on information in the McDaniel & Associates, report dated April 30, 2012, compiled by Mr. Cam Boulton, a Senior Evaluation Engineer with McDaniel. Mr. Boulton has consented to the statements based on this information, and to the form and context in which these statements appear.

**For inquiries please contact:**

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