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ASX Announcement

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OIL, OIL/CONDENSATE WET GAS WINDOW CONFIRMED FOR VELKERRI AND BARNEY CREEK FORMATION SHALES, MCARTHUR BASIN ONSHORE NORTHERN TERRITORY, AUSTRALIA

The Directors of Empire Energy Group ('EEG") are pleased to announce that the third stage of the Company's McArthur Basin shale research program has been completed by the University of Adelaide Research Unit. This research program focused on organic geochemistry, mineralogy and porosity of the target carbonaceous black shale intervals in the Barney Creek and Velkerri Formations within the onshore McArthur Basin.

Highlights

The program has identified a number of zones within the McArthur Basin that show good potential for hydrocarbon prospectivity. The following summarises key findings of the Company's Barney Creek and Velkerri core research program to date:

- TOC up to 6.4% (further research undertaken by the Company has identified TOC up to 10.4% in other core samples).
- Hydrocarbon generation – ranging across the oil, oil/condensate & wet gas generation window.
- Organic Carbon Type - Marine II and Mixed II-III.
- T_{max} and Hydrogen Indices indicate thermal maturity ranging from early maturity for oil through late maturity for gas.
- Pay Zones – up to 150m (shale formations interlayered with higher porosity silt layers).

The initial research program is now drawing to a close. The Company has commenced to identify those segments of the Basin with the optimum petroleum potential and to review opportunities for the most efficient and cost effective method, including seeking potential partners, to commence the exploration and development of its extensive, highly prospective oil and gas tenements in the McArthur Basin.

Research Program

From around the 900 core samples collected, the research program analysed 133 samples from the Barney Creek and 68 samples from Velkerri formations for Total Organic Carbon (TOC)

content. From those samples, 89 Barney Creek and 35 Velkerri were further characterised by a Source Rock Analyser (SRA) to determine their Thermal Maturity.

The geochemical parameters that characterise the shales are a reflection of both organic matter ('kerogen') composition and the thermal maturity level of the organic matter when it generated hydrocarbons. Variations in the geochemical parameters allow the determination of whether the shale source rock formation remains immature, in the early oily window, at peak oil generation, in the late oil window, in the zone of condensate and wet gas generation, or dry gas window, or post mature.

Thermal maturity measures to what degree the source rocks reached temperatures and pressures sufficient to achieve maturity and if so whether they have already generated and expelled hydrocarbons. This is in effect a snapshot of the hydrocarbon generating capacity and organic carbon type.

Results

As expected, due to the significant area over which the core samples were distributed in or around the Company's Southern and Central tenements, (Batten Trough and Urupunga Fault Zone), there is a variance between the results from the core samples tested.

A. Barney Creek Formation

In the Barney Creek Formation, TOC values ranged up to 6.4%. Further, TOC values show the Barney Creek Formation has two to four horizons that are good to excellent for prospective hydrocarbon generation of oil and gas. The Barney Creek Formation has prospective pay zones up to 140m thick. The general trend is for the principal zone to be 20 to 40m thick.

In summary, organic geochemical parameters indicate that the Barney Creek core studied lies in the late immature to mature oil generation window with the highest prospective zones in the oil/gas prone to oil marine prone generation state.

Thermal maturity varies across the Barney Creek Formation core studied, but generally varies within the Good to Excellent Zone. Core results were generally type II and Mixed II-III 'kerogen' (type II = oil prone-generally marine; type II-III = oil/gas prone).

B. Velkerri Formation

In the Velkerri Formation, TOC values ranged up to 5.7%. Further TOC values show the Velkerri Formation has two horizons that are good to excellent for prospective hydrocarbon generation for oil and gas. The Velkerri Formation has prospective pay zones up to 150m thick. The general trend is for the principal target zone to be 30 to 40m thick.

In summary, organic geochemical parameters indicate that the Velkerri core studied lie in the oil/condensate wet gas window. A few occasional samples were in the dry gas/post mature window.

Thermal maturity varies across the Velkerri Formation core studied, but generally lies within the Good to Excellent Zone, over the prospective sections measured. Core results were generally type II-III/III kerogen (type III = gas prone).

Next Stage of Research Program

As the initial research program draws to an end the Company will start the process of integrating thermal maturity results into the regional 3D geo-model of the McArthur Basin which has now been completed by the Company. The results from integration of these data will allow the company to construct a series of 'Common Risk Segment' maps. These will indicate those segments of the basin where the target shales have the optimum depth, geological structure and geochemical parameters to be the focus for the initial exploration programmes.

The preliminary emphasis will be to further develop the most prospective shale common risk segment areas and conventional structures identified during the course of the geo-modelling which currently includes, and is not limited to:

- 26 potential conventional structures with EP(A)180, 181 and 182; and
- a potentially highly prospective unconventional shale outlier within EP187, similar in nature to the Myrtle sub-basin, along with a further 8 potential conventional structures in EP187;

and will continue to integrate new and additional data that will become available during 2013/14. These areas are likely to be progressed as initial exploration drilling locations in 2014/15.

ABOUT EMPIRE ENERGY GROUP LIMITED

In early 2007, the Company established Empire Energy USA, LLC and currently holds around 96% of its issued capital. Empire Energy USA is an oil and natural gas producer with operations in Appalachia (New York and Pennsylvania) and the Central Kansas Uplift (Kansas). Total combined 2P reserves are estimated at 14.8 million Boe.

The Company holds approximately 220,000 acres of Marcellus Shale and 180,000 acres of Utica Shale in western New York State and Pennsylvania. In addition, the Company has a Exploration Licence and 6 Applications over 14.6 million acres in the McArthur Basin, Northern Territory, Australia, which is considered prospective for both conventional and unconventional petroleum systems.

Empire Energy implemented a US$100 million credit facility with Macquarie Bank Limited in early 2008 for the sole purpose of acquiring and developing oil and gas assets in the USA. This facility has been increased to US$150 million with around US$49m of the debt facility currently drawn.