



MOSMAN OIL AND GAS
LIMITED

12 November 2021

**Mosman Oil and Gas Limited
("Mosman" or the "Company")**

EP 145 Update

Encouraging results from the first gravity survey and integrated technical report to cover the whole permit

Mosman Oil and Gas Limited (AIM: MSMN) the oil exploration, development, and production company, announces an update on the EP 145 exploration permit in NT, Australia.

Mosman continues to progress the exploration of this 100% owned permit which has potential for Hydrocarbons, Helium and Hydrogen. Following the recent airborne gravity survey over the entire permit, Mosman undertook a detailed SEEBASE® interpretation project with Geognostics Australia Pty Ltd ("Geognostics"), independent geological experts, who recently re-evaluated the basement geology across the whole Northern Territory for NT Geoscience.

The project undertaken by Geognostics for Mosman, and its resulting report dated October 2021 ("Amadeus Basin, EP145 SEEBASE Update"), has integrated gravity, magnetic, seismic and well data to produce a high-resolution geological model across the entire permit. This report has now been officially received and has significantly improved the understanding of the deep structural elements, particularly in areas not currently covered by seismic; "higher definition in the geometry, depth and structure of the Walker Creek Anticline and region surrounding EP145".

The modelling presented in the Geognostics report provides detailed definition of the basement structure and topography where Hydrocarbons, Helium and Hydrogen are proposed to be trapped. It also confirms the structural and stratigraphic similarities between the Walker Anticline in EP145 and the Mereenie Anticline (which includes the Mereenie oil and gas field) to the northwest results suggest "in profile, the structure of the Walker Creek Anticline is similar (although separate) to the Mereenie trend to the northwest". Basement modelling confirms the presence of granitoid bodies within and surrounding the permit which are a potential Helium source and suggests likely up dip migration paths into closures along the Walker Creek Anticline.

The other key ingredient for a successful subsalt play, the presence of an evaporite seal, was not a primary objective in this report. The gravity modelling analysed the density of the stratigraphic units including the Gillen Fm, an interbedded evaporite, carbonate and shale unit, which forms the seal in this play. The modelling suggests that massive, low density salt bodies as observed in the south of the basin are not present in the core of the anticline but that interbedded carbonates and evaporites are more likely to be present and still have the potential to form an effective seal. As noted by in the report Geognostics, the chaotic seismic character is "more likely to be faulted and fractured sediments due to deformation folding over the anticline" and "While the presence of massive, mobile salt (halite) bodies has been tested with the gravity models, the presence of thinner salt beds and related evaporite facies near basement is still viable".

The Geognostics SEEBASE® model provides better insights into the structural architecture and deformation style in this part of the Amadeus Basin. Mosman considers this area may be a potential sweetspot with all the ingredients for hydrocarbons, helium and hydrogen exploration targets are present.

Mosman presented some results from the Geognostics Report at the recent NT Resources Conference (SEAAOC) and this presentation is available at https://www.mosmanoilandgas.com/sites/default/files/26-10-21%20SEAAOC%20presentation_FINAL%20%28abridged%29_0.pdf



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The next step for Mosman will be to progress the technical work to further define the prospectivity of the permit. Acquisition and interpretation of 2D seismic will comprise the next significant exploration activity in the current permit year (expiring August 2022), prior to identifying a drilling location and drilling an exploration well (by August 2023). It is a requirement that prior to any field projects, including the 2D seismic noted above, a Sacred Site Clearance Survey ("Survey") is acquired by the Central Land Council (CLC). This was agreed and scheduled by Mosman and the CLC for November 2021. Unfortunately, Mosman has been advised by the CLC very recently that the Survey will not now happen until April 2022. All seismic and drilling activities are subject to obtaining the necessary planning approvals from the NT Department of Industry and Resources, which are currently being coordinated by the project manager (ResourceGeo). In anticipation of any further delays to project approval Mosman may seek an extension and suspension to the current permit year.

John W Barr, the Chairman of Mosman commented: "Mosman is very pleased to see such encouraging results from the first gravity survey and integrated technical report to cover the whole permit resulting in a significant increase in our understanding of its exploration potential.

"This work was a critical step in progressing the permit and is all the more impressive in that it was completed against a background of disruptions from the pandemic."

Qualified Person's Statement

The information contained in this announcement has been reviewed and approved by Andy Carroll, Technical Director for Mosman, who has over 35 years of relevant experience in the oil industry. Mr. Carroll is a member of the Society of Petroleum Engineers.

Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR') which has been incorporated into UK law by the European Union (Withdrawal) Act 2018. Upon the publication of this announcement via Regulatory Information Service ('RIS'), this information is now considered to be in the public domain.

Enquiries:

Mosman Oil & Gas Limited

John W Barr, Executive Chairman
Andy Carroll, Technical Director
jwbarr@mosmanoilandgas.com
acarroll@mosmanoilandgas.com

NOMAD and Broker

SP Angel Corporate Finance LLP
Stuart Gledhill / Richard Hail / Adam Cowl
+44 (0) 20 3470 0470

Alma PR

Justine James / Joe Pederzolli
+44 (0) 20 3405 0205
+44 (0) 7525 324431
mosman@almapr.co.uk

Joint Broker

Monecor (London) Ltd trading as ETX Capital
Thomas Smith
020 7392 1432

Updates on the Company's activities are regularly posted on its website:
www.mosmanoilandgas.com