

24 October 2022

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

EP 145 Prospective Resource Estimate for Helium and Hydrogen

Mosman Oil and Gas Limited (AIM: MSMN) the oil exploration, development, and production company, announces that a third-party technical report confirms that its 100% owned and operated permit EP 145 in Northern Territory, Australia has the essential ingredients for Helium and Hydrogen prospectivity, in addition to hydrocarbons.

A preliminary technical evaluation by Geognostics Australia Pty Ltd ("Geognostics"), has identified favourable scenarios for all three essential play elements related to viable helium and hydrogen plays in EP 145 ("Technical Report"). These components are also present in the Mount Kitty-1 and Magee-1 wells in the Amadeus Basin which flowed helium, hydrogen and hydrocarbons.

Geognostics Prospectivity Report

The key findings of the Technical Report are summarised below:

- Identified favourable scenarios for all three essential play elements related to viable helium and hydrogen plays including:
 - 1) basement composition as a source of helium;
 - 2) basement structure and connectivity via faults systems to support entrapment and / or migration of deeply-sourced gases (hydrogen and helium); and
 - 3) possible seal facies above basement
- EP 145 is underlain by felsic-intermediate granites, a known source of helium in the basin.
- EP 145 contains the West Walker anticline with traps at multiple levels and migration pathways.
- The Gillen Formation evaporites interlayered with thin salt could be present and could act as viable seals.

Geognostics are independent experts with over 25 years' experience of working for governments and companies in Australia and internationally(<https://www.geognostics.com>). Its Technical Report comprehensively integrates geophysical, well and field mapping data from the permit with regional gravity, magnetics, seismic and well data to produce a review on the prospectivity in EP 145.

Five high-graded areas of prospectivity, including hydrocarbons, helium and hydrogen have been identified and ranked based on an enhanced understanding of the structural configuration and evolution of the Walker Creek Anticline. New play concepts have been developed for deeper, basement-derived helium and hydrogen exploration.

Prospective Resource

Based on the Geognostics report, and data from other wells in the Amadeus basin, Mosman has estimated gross Prospective Resource volumes for hydrocarbons, helium, and hydrogen associated with the Walker Creek Anticline as a lead within the boundaries of the EP 145 permit using a deterministic approach and applying the SPE PRMS standard.



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Prospective Resources (Bcf)	Low Estimate	Best Estimate	High Estimate
Total gas	12	440	2,290
Helium	0.3	26.4	229
Hydrogen	0.24	26.4	275

Source: Mosman Oil and Gas Ltd, October 2022

Exploration Programme

The ongoing exploration work programme on EP 145 is to acquire seismic prior to drilling an exploration well. Mosman has applied for the required regulatory and Central Land Council ("CLC") approvals. The CLC has conducted a site survey as a pre-requisite to land access approval for seismic acquisition.

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.

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



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Notes to editors

Mosman (AIM:MSMN) is an oil exploration, development, and production company with projects in the US and Australia. Mosman's strategic objectives remain consistent: to identify opportunities which will provide operating cash flow and have development upside, in conjunction with progressing exploration of existing exploration permits. The Company has several projects in the US. In addition to exploration projects in the Amadeus Basin in Central Australia.

Glossary:

boe	Barrels of oil equivalent based on calorific value as opposed to dollar value
boepd	Barrels of oil per day of oil equivalent based on calorific value as opposed to dollar value
bopd	Barrels of oil per day
Gross Project Production	Means the production of BOE at a total project level (100% basis) before royalties (where Mosman is the Operator) and where Mosman is not the operator the total gross production for the project
Mcf	Thousand cubic feet
Bcf	Billion cubic feet
Mcfpd	Thousand cubic feet per day
MBtu	One thousand British Thermal Units
MBtupd	One thousand British Thermal Units per day
MMBtu	One million British Thermal Units
MMBtupd	One million British Thermal Units per day
Net Production	Net to Mosman's Working Interest; Net Production attributable to Mosman means net to Mosman's Working Interest before royalties
SPE	Society of Petroleum Engineers
SPE PRMS	A standard for the definition, classification, and estimation of hydrocarbon resources developed by the Oil and Gas Reserves Committee of the Society of Petroleum Engineers and named the Petroleum Resource Management System

SPE defines Prospective Resources are those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from undiscovered accumulations. SPE also notes "Prospective Resources have both an associated chance of geologic discovery and a chance of development. Prospective Resources are further categorized in accordance with the range of uncertainty associated with recoverable estimates, assuming discovery and development, and may be sub-classified based on project maturity" and "The Range of Uncertainty.....reflects a reasonable range of estimated potentially recoverable volumes for an individual accumulation. Any estimation of resource quantities for an accumulation is subject to both technical and commercial uncertainties, and should, in general, be quoted as a range".

<https://www.spe.org/en/industry/petroleum-resources-classification-system-definitions/>