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high-tech world.

ASX Release

5 October 2023

Rig up continues at Mbelele-1, North Rukwa Project

Highlights

- Rig-up at 90% at Mbelele-1 nearing completion
- Strong support from Local Community and Tanzanian government
- World first test for helium in the proven EARS BMFC play imminent

Noble Helium Limited (ASX:NHE) (“Noble Helium” or “the Company”) reports that rig-up of Marriott Rig #16 at the Mbelele-1 site is near complete at the Company’s North Rukwa Helium Project in Tanzania.

The Marriott Rig #16 “rig-up” is close to complete, with circa 90% of the equipment brought in on the 38 semitrailer loads now assembled in preparation for spudding of Mbelele-1. During rig-up, what is believed to be transit damage to the mast was discovered. Fortunately, the damage is repairable, and a Drillmec specialist arrives on site today from Italy to supervise and then certify the repair, which should be completed over the weekend. Once repaired, the mast will be installed, with the rig then being 100% ready for commissioning and acceptance testing prior to spud. As reported, all the SLB services equipment is onsite for integration into the drilling unit as it is assembled.

The drill camp is now fully operational and Mbelele-1 will spud once operations are ready to commence safely.

Mbelele-1 will test circa 450m of Neogene aged Upper, Mid and Lower Lake Beds before intersecting basement. Mbelele-2 will appraise these reservoirs, then drill an additional 400m of Lower Lake Bed sediments that are not present at the Mbelele-1 location before again intersecting basement. Anomalous, potentially gas-related responses are present in the seismic for both wells, accompanied by anomalous helium in the overlying soil, which can only have been sourced from underground.

Depth to Basement for the planned Mbelele-1 well is circa 500m true vertical depth (TVD) and circa 850m TVD for Mbelele-2.

The Mbelele Prospect is estimated to host an unrisked summed mean Prospective Helium Resource of 15.7 billion cubic feet (Bcf) in high quality Neogene reservoirs, trapped within a Basin Margin Fault Closure (BMFC)¹.

¹ Refer ASX release dated 25 July 2023 *Mbelele Resource Increase and Table 1..*



Figure 1. a) Mbelele-1 Wellsite and b) preparing for wellhead / BOP installation at Mbelele-1



Figure 2. Msia Drill Camp at the base of the Ufipa Basin Margin Fault escarpment

Meanwhile, the community continues to make us extremely welcome, hosting a townhall event in the local village of Zimba, a few kilometres from the Mbelele wellsites. The Company provided a project update and leaders underlined government support for the project. The entire Zimba ward of approximately 2000 people was in attendance, with an address from the Member of Parliament for the Rukwa region, Hon Deus Sangu.

As part of its ongoing community support program, Noble Helium has provided 250 new school desks seating 750 students at Zimba school, in gratitude for the community's continued support. Community leaders expressed deep gratitude for the nearly 300 local jobs that have already been provided since Noble Helium began exploring the area.

Leaders from the surrounding villages, wards, district and region attended and invited Noble Helium personnel to lunch afterwards.



Figure 3a. Townhall with Rukwa MP and entire Zimba Ward in attendance



Figure 3b. L to R: village leaders, Rukwa MP Hon Deus Sangu, Noble Helium CEO and Country Manager Joseph Uisso + Zimba school children

Noble Helium CEO and Co-Founder, Mr Justyn Wood, said *“it’s a humbling experience to have the entire community stop their daily lives to come and hear of progress direct from the Company. We have set the project up for success, with strong community and government relations being fundamental to that. We have the full support of the Tanzanian government for this project.*

The team have done an incredible job pulling together a complex operation in a remote, logistically challenging location in western Tanzania safely and professionally. It’s testament to their grit and determination that we are very close to spudding these groundbreaking wells. All of the years of hard work are now coming together as we prepare to demonstrate what has the potential to be an entirely new and globally significant helium province. Despite the minor delay with the repair required to the rig, we still have plenty of time to complete the drilling and testing of both wells and are extremely confident of success.”

Mbelele Prospect	Unrisked Recoverable Helium in gas phase (Bcf)			
	Low estimate	Best estimate	Mean estimate	High estimate
Neogene Reservoirs	1.8	8.2	15.7	36.8

Table 1: Company Estimated Unrisked Prospective Helium Resource range for Mbelele

North Rukwa Prospects and Leads	Unrisked Recoverable Helium in gas phase (Bcf)			
	Low estimate	Best estimate	Mean estimate	High estimate
Summed Totals	19.6	100.7	175.5	405.7

Table 2: NSAI Estimated Unrisked Prospective Helium Resource range for NHE North Rukwa

This announcement has been authorised for release on ASX by Noble Helium’s Board of Directors.

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Forward-looking statements

This announcement may contain certain “forward-looking statements”. Forward looking statements can generally be identified by the use of forward-looking words such as, “expect”, “should”, “could”, “may”, “predict”, “plan”, “will”, “believe”, “forecast”, “estimate”, “target” and other similar expressions. Indications of, and guidance on, future earnings and financial position and performance are also forward-looking statements. Forward-looking statements, opinions and estimates provided in this presentation are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance.

Competent Persons Statement

The technical information provided in this announcement has been compiled by Mr. Ashley Howlett, Exploration Manager, Professor Andrew Garnett, Non-Executive Director, and Mr. Justyn Wood, Chief Executive Officer, all of Noble Helium Limited. The resource estimates have been prepared in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineers.

Mr Howlett is a qualified geologist with over 20 years technical, and management experience in exploration for, appraisal and development of, oil and gas resources. Mr Howlett has reviewed the results, procedures and data contained in this announcement and consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

Cautionary Statement for Prospective Resource Estimates

With respect to the Prospective Resource estimates contained within this report, it should be noted that the estimated quantities of gas that may potentially be recovered by the future application of a development project relate to undiscovered accumulations. These estimates have an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable helium.

Green helium for a high-tech world.

Noble Helium is answering the world’s growing need for a primary, ideally carbon-free, and geo-politically independent source of helium. Located along Tanzania’s East African Rift System, the Company’s four projects are being advanced according to the highest ESG benchmarks to serve the increasing supply chain fragility and supply-demand imbalance for this scarce, tech-critical and high-value industrial gas.

Our flagship North Rukwa Project has an independently certified, summed unrisked mean Prospective Helium Resource of 176 billion cubic feet (equivalent to approximately 30 years’ supply). The project lies within the Rukwa Basin, which has the potential to be the world’s third largest helium reserve behind USA and Qatar.

Priced at up to 50 times the price of LNG in liquid form, helium is now essential to many modern applications as an irreplaceable element in vital hi-tech products such as computer and smartphone components, MRI systems, medical treatments, superconducting magnets, fibre optic cables, microscopes, particle accelerators, and space rocket launches – NASA is a major consumer. Rising demand and constrained supply are fuelling growth prospects within the global marketplace, particularly for cleaner “green helium” sourced from non-carbon environments. At present, more than 95% of the world’s helium is produced as a by-product of the processing of hydrocarbon-bearing gas.

Additionally, Noble Helium has commissioned the first ever Helium Atlas, with an exclusive five-year agreement allowing the Company to identify additional prospective areas to target for diversification. The Atlas uniquely positions Noble Helium as a world leading helium explorer.

