

ASX Release

16 November 2023

Drilling Commences at Mbelele-2

- **Mbelele-2 has spudded**
 - **Targeting multiple gas zones in Upper, Middle and Lower Lake Beds**
 - **Drilling expected to take several weeks**
 - **On success, may be cased and suspended as a future producer**
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Noble Helium Limited (ASX:NHE) (“Noble Helium” or “the Company”) has spudded its Mbelele-2 well at the Company’s 100% owned North Rukwa Helium Project in Tanzania.

With the Marriott rig #16 and all SLB services equipment now rigged up, Mbelele-2 will be drilled to approximately 850m in multiple stages over the coming weeks.

While results from Mbelele-1 remain preliminary, this first well has provided further demonstration that the North Rukwa basin hosts an extraordinarily active helium system, consistent with all the exploration data acquired by the Company over the preceding 18 months. Anticipated timing for the results from laboratory analysis of the downhole samples taken at Mbelele-1 has now firmed up to mid-December.

Mbelele-1 has also demonstrated exceptionally good quality reservoirs likely to be capable of delivering high flow rates as well as good quality potential sealing formations, including a thick seal section at the bottom which separates the formations tested in Mbelele 1 from the deeper targets which will be targeted in Mbelele-2.

As previously advised, these Lower Lake Beds demonstrate potential gas indicators in 3D seismic data¹ (Figure 1), and account for a significant proportion of the Mbelele Prospect’s targeted prospective helium resource. Testing for helium content and flow potential is expected to be carried out at multiple levels as each stage of the well is drilled.

On success, Mbelele-2 may be cased and suspended for future extended flow testing and as a future producer.

¹ Refer ASX release dated 25 July 2023: Mbelele Resource Increase

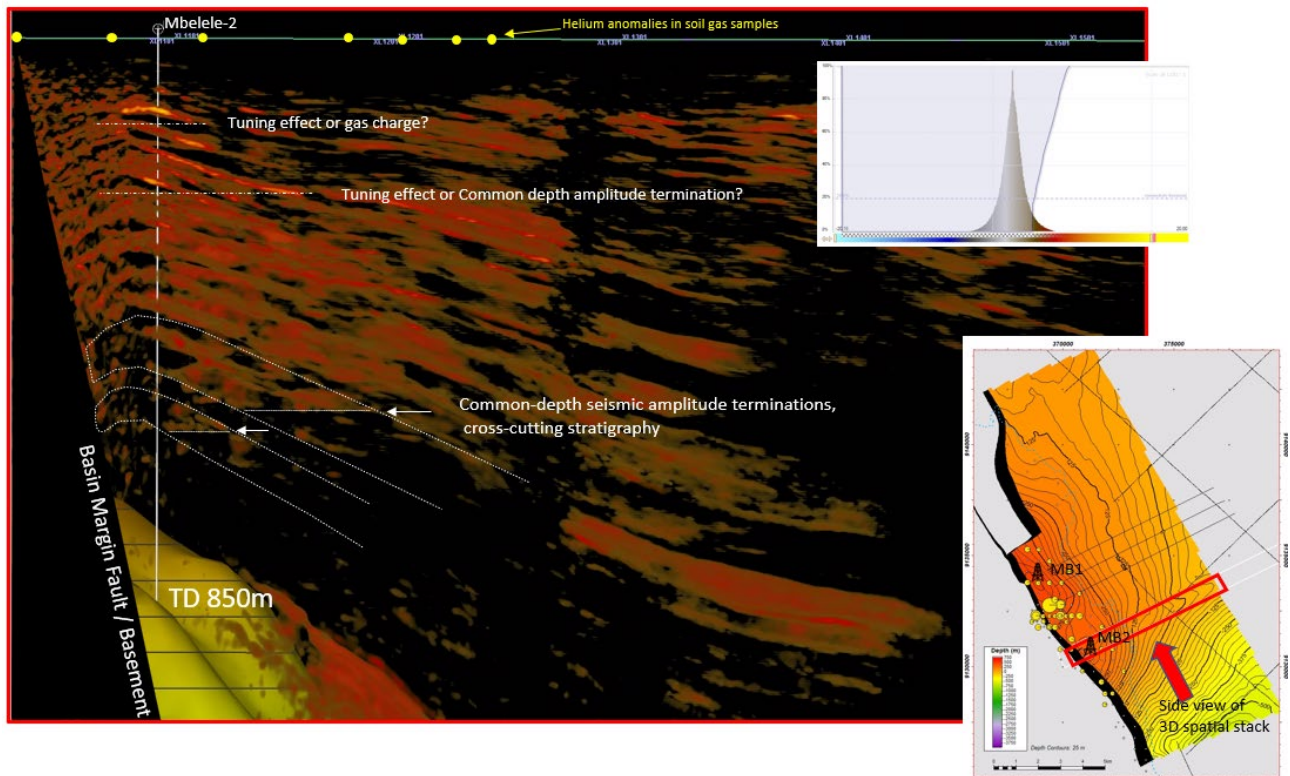


Figure 1. Side-on view of Mbebele-2 wellbore trajectory in the Mbebele 3D spatial stack. The well targets reservoir sections in the BMFC with multiple flat-lying amplitude terminations within Upper, Middle and Lower Lake Beds, potentially indicating gas-water contacts.

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.

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Primary 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 unrisksed 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.

