

Rukwa Operations Update

Highlights

- North Rukwa Phase I Seismic Surveys completed
- The Company expects to announce the first two drilling targets by the end of the March quarter
- Additional drill targets beyond the 2023 prospects expected to be generated
- Drilling Cooperation Agreement executed with Helium One Global Limited
- Local community engagement activities continue

Noble Helium Limited (ASX:NHE) (“Noble Helium”, “NHE” or “the Company”) is pleased to provide an update on its helium exploration activities in Tanzania as it continues to advance preparations to discover gas-phase helium in the subsurface of the Rukwa Basin, SW Tanzania, and narrowing in on drilling candidates for spud in Q3 2023.

The 3D seismic program that commenced in 2022 has now been completed with the acquisition of the broad 3D area over the Chilichili lead on the eastern side of Lake Rukwa (Figure 2). A further 27km of 2D seismic lines were also collected over the Mbelele lead on the western side of the lake for final prospect delineation and wellsite location.

Initial results from the Phase I seismic program have confirmed the presence of all targeted leads. With the benefit of all de-risking studies that are now concluding, the Company has confidence that multiple drilling targets will be matured to drillable status, beyond the initial two that are in preparation for drilling in Q3 this year to demonstrate the presence and effectiveness of a working helium system in the North Rukwa basin.

Definition of our 2023 Drillable Prospects is on track for completion in Q1, as previously advised, and discussions with potential Joint Venture partners are on track for the completion of a farm-in in Q2.

Noble Helium’s Co-Founder and CEO, Justyn Wood, commented:

“Our maiden seismic campaign has successfully been completed. Our contractor BGP has done an outstanding job in executing a logistically challenging program and collected high quality data we can have the utmost confidence in. Initial results indicate multiple drilling targets will emerge from the data for the upcoming 2023 program and beyond. Assuming we demonstrate gas-phase helium in the subsurface later this year, this foundational work sets the Company up for success with plenty of running room in just one of our four project areas covering nearly 5,500km² of this globally unique helium system.”

“We look forward to finalising our drilling plans for 2023, engaging with potential farm-in partners and locking in a drilling contractor in cooperation with our neighbours, Helium One.”

North Rukwa 3D Seismic Survey Completed



Figure 1 - 3D seismic source vessel at the conclusion of Phase 1 operations in Lake Rukwa

The Company is pleased to advise that it has completed the final ~80km² wide-azimuth 3D seismic survey over the Chilichili structures on the eastern side of Lake Rukwa (Figure 2). This is the last of the planned Phase I seismic programs prior to drilling in Q3 2023, retaining Chilichili on the list of potential drilling candidates.

The Chilichili structure is currently estimated to host a mean Prospective Helium Resource of 10.5 Bcf (billion cubic feet) primary helium (NSAI 2022), with the full stratigraphic section of the Rukwa Basin, including deeper Karoo sands, offering significant potential for stacked pay. It is highly likely the Chilichili structure would be an economically viable standalone drilling target with long-term liquid helium contracts recently executed at ~US\$450/Mscf (thousand cubic feet).¹

As previously announced, the fully processed 3D surveys over the three western leads have now been received and are being integrated into our Petrel™ subsurface model, with the Mbelele and Kachinga leads expected to mature to drillable Prospects and potential

¹ November 2022 Kornbluth Consulting

candidates for the upcoming 2023 drilling program (NSAI mean Prospective Helium Resource 10.0 Bcf and 7.9Bcf respectively). As a refinement to the Mbelele lead, a further 27km of 2D seismic has now been completed.

Following field interpretation of the data, the Company is confident that multiple high Probability of Success (POS) drilling candidates will emerge from the integration of all new data by the end of the quarter, with the two best targets to be drilled this year.



Figure 2 – North Rukwa Project Tenement and approximate 3D Seismic Swath Locations

Community Relations

Noble Helium is committed to providing positive outcomes for the host communities in which we operate. The seismic program involved the direct and indirect employment of more than 160 local community members over the course of the five-month program and healthy community relationships have been established.

During the Chilichili seismic program in the Isome area, the community enjoyed the Isome Football League, a coordinated series of games with the seismic team and local villages, sponsored by Noble Helium. The conclusion of the Chilichili survey was celebrated with the Isome Grand Final (Figure 3).



Figure 3 - Opposing Teams in the Isome Football League Grand Final

2023 Drilling Program and Farm-out

Our fully integrated drilling management team is focused on successfully delivering the 2023 two well program. The Company expects to generate multiple drilling targets based on the new seismic survey interpretation, with the 2023 wells to be selected based on a combination of Probability of Success in discovering gas phase helium and probability of execution success during our maiden drilling campaign in the basin.

The Company is pleased to have executed a cooperation agreement with our neighbours in the Rukwa Basin, Helium One Global Limited (AIM:HE1) (“Helium One”), to cooperate in sourcing and securing a suitable drilling rig, associated services and arranging logistics as required for the Drilling Campaign. We expect this common-sense development to result in significant synergies and cost savings, for the benefit of both groups and our respective shareholders. We look forward to working with Helium One to execute a highly cost-effective and successful 2023 drilling campaign in the Rukwa Basin.

The farm-out process to fund our drilling program continues, with LAB Energy Advisors Ltd in discussions with multiple parties with non-binding offers due at the end of Q1 2023.

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This announcement has been authorised for release on ASX by the Company's Board of Directors.

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About Noble Helium

Noble Helium is a Tanzania-focused helium explorer looking to provide carbon-free and geopolitical-free helium to the global market for this scarce, tech-critical and high-value industrial gas. Noble Helium has a substantial landholding of premium helium exploration acreage totalling 5,464km² across four key project areas in the East African Rift System (EARS) basins of Tanzania: North Rukwa, North Nyasa, Eyasi and Manyara.

The Company's flagship project, North Rukwa, already has an independently certified, summed unrisked mean Prospective Helium Resource of 176 billion cubic feet (equivalent to approximately 30 years' supply), with the benefit of legacy oil and gas exploration data. Rukwa Basin has the potential to be the world's third largest helium reserve behind USA and Qatar.

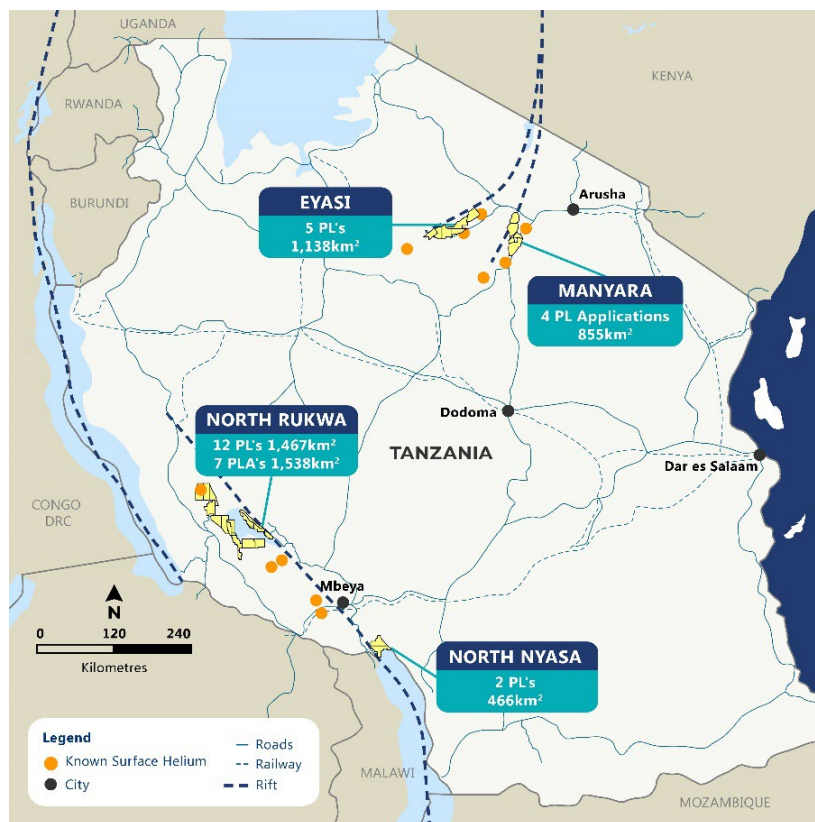


Figure 4 – Noble Helium Project Locations

The potential for helium to have been retained within the rift basins of Tanzania is considered significant. After the first oil discoveries in Uganda in 2006, in which Noble Helium's CEO played a key role, a succession of oil and gas exploration wells in the EARS basins of Uganda and Kenya demonstrated an extraordinary discovery rate of 80%, or 4 in 5 from over 30 wells. More than 4 Billion BOE has been proven, and both countries are now progressing to commercial production.

Neighbouring Rukwa Basin explorer Helium One Global plc has recently announced plans to redrill its Tai-1 well, which demonstrated multiple helium shows from surface to basement in August 2021. Tai-1 is located 30km to the south of the Company's licences.

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 helium Atlas uniquely positions Noble Helium as a world leading helium explorer.