

## 3D SEISMIC SURVEY UNDERWAY

### Highlights

- High-resolution 3D seismic surveying has commenced in the North Rukwa Project area, one week ahead of schedule
- 3D “fast track” processed volumes expected from early October
- Key exploration program for selection of drilling targets in 2023
- Multiple expressions of interest in Rukwa drilling program

**Noble Helium Limited (ASX:NHE)** (“**Noble Helium**”, “**NHE**” or “**the Company**”) is pleased to announce that it has commenced its first 3D seismic survey in the North Rukwa Project area in Tanzania, one week ahead of schedule.

BGP International Tanzania (“BGP”) has commenced acquisition of the Kachinga 3D seismic swath (Figure 1). The first ever shot of 3D seismic in the Rukwa Rift basin is shown for posterity (Figure 2). The local community is highly engaged and supportive, with more than 160 locals employed representing >85% of the workforce.

The Company has programmed 8 (eight) high-resolution 3D seismic swaths to image the central portion of every lead in the Company’s North Rukwa portfolio. This includes all 7 (seven) Basin Margin Fault Closures (BMFCs) (Figure 1), whose presence, size and coincidence with soil gas helium anomalies was recently confirmed by Airborne Gravity Gradiometry. Acquisition of the 8 (eight) 3D swaths is expected to take 6-8 weeks, roughly one per week.

As each swath is acquired, a field-processed “fast-track” 3D seismic volume will be produced. Whilst preliminary, each fast track volume will provide initial indications of the potential drill targets, with the first volume expected in early October. The fully processed 3D volumes from BGP’s processing-centre are anticipated in early Q1 2023, for final interpretation, Quantitative Interpretation and integration with the Airborne Gravity Gradiometry to update the Company’s Petrel™ based geological model.

These 3D surveys represent a key component of Noble Helium’s exploration program to select the two most prospective helium targets for drilling in 2023. The 3D seismic data is expected to provide maximum pre-drill confidence in discovery of helium, along with accurate well designs and precise locations for the two planned exploration wells.

The Company has received expressions of interest from multiple parties, regarding the farmout process to fund the 2023 drilling campaign at North Rukwa. Results from this 3D seismic survey are expected to play an important role in advancing these discussions.

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

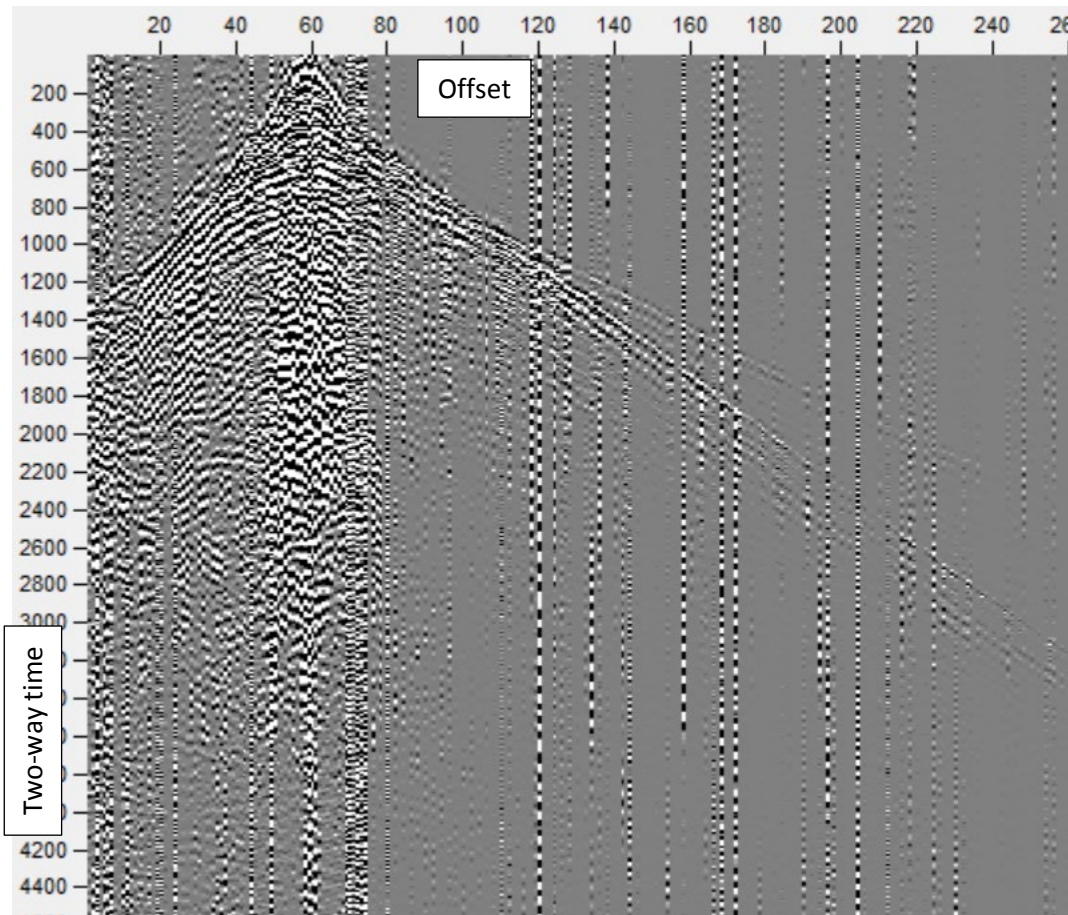
*“We commend BGP on its excellent planning and preparation, allowing the 3D seismic surveys to commence a week ahead of schedule and be completed well in advance of the coming wet season. 3D seismic is the pinnacle of our comprehensive exploration program at North Rukwa as we focus in on the two most prospective leads in the basin.”*

*“The results from each of our exploration programs in 2022 have added to the body of evidence that indicates North Rukwa is highly prospective for helium and confirmed that the basin has the potential to emerge as the world’s largest primary helium reserve.”*

*“We look forward to the results of the 3D seismic surveys, which will provide detailed insights into each lead in our North Rukwa portfolio.”*



Figure 1 – North Rukwa Project Tenement and approximate 3D Seismic Swath Locations



*Figure 2 - First Kachinga 3D Swath Seismic Shot Record*

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

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### **Forward-looking statements**

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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 5,464km<sup>2</sup> 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 3 – 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.