



For the Technology of Today  
and the Future

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- Highly dynamic commodity market
  - Uncertainty of supply and supply disruptions - US Federal Reserve closes 2021
  - Cannot be substituted, strong medical & high-tech demand - price has doubled since 2010
- 100% owner-operator of a newly identified world class helium province in Tanzania
  - Very high helium concentrations of 8.0 – 10.5%
  - Independently verified Unrisked Prospective Recoverable Helium Resource (P50) of 98.9 billion standard ft<sup>3</sup>
  - >4,500km<sup>2</sup> exclusive tenement package – multiple projects
- No associated hydrocarbons, standalone helium projects associated with nitrogen
  - Established modular, easily scalable production units
  - Production can be tailored to demand



# OVERVIEW

## BOARD OF DIRECTORS



Neil Herbert  
*Executive Chairman*

- Finance professional with 25+ years experience in the minerals industry specialising in developing businesses from exploration to production
- Wealth of experience managing, advising and investing in the resource sector



Thomas Abraham-James  
*Chief Executive Officer*

- Geologist with 10+ years experience in Tanzania, Australia and Greenland
- Co-founder of Helium One Ltd & Hekla Consulting Ltd, formerly Exploration Manager with listed and private explorers



Josh Bluett  
*Technical Director*

- Geologist with 8+ years technical experience with oil & gas in Africa and Australia
- Co-founder of Helium One, previously with Armour Energy Ltd and AWT International



Charlie Wood  
*Corporate Director*

- Over 15 years experience in the minerals industry specialising in financing
- Co-founder of Helium One and current director of Mayan Energy Ltd.



Jeffrey Clarke  
*Executive Director*

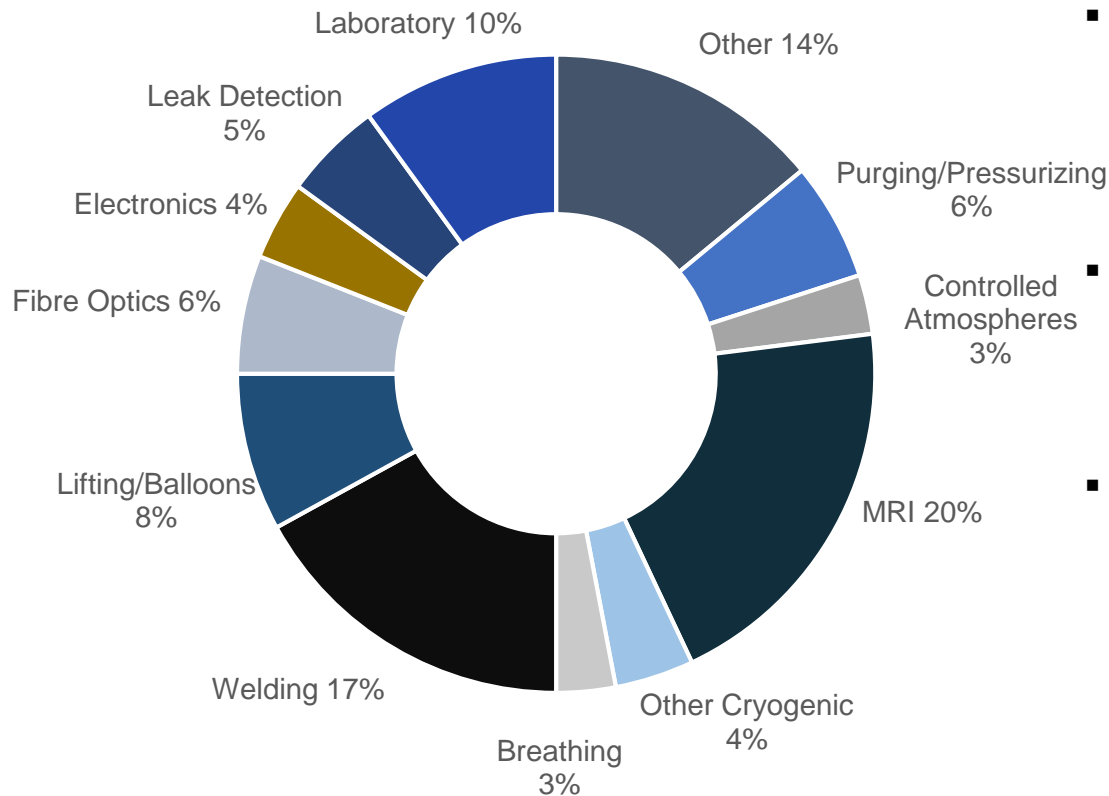
- Over 40 years experience in the oil & gas industry, specialising in operations and management in Africa
- Previous directorship with Ophir Energy Plc



Jon Taylor  
*Non-Executive Director*

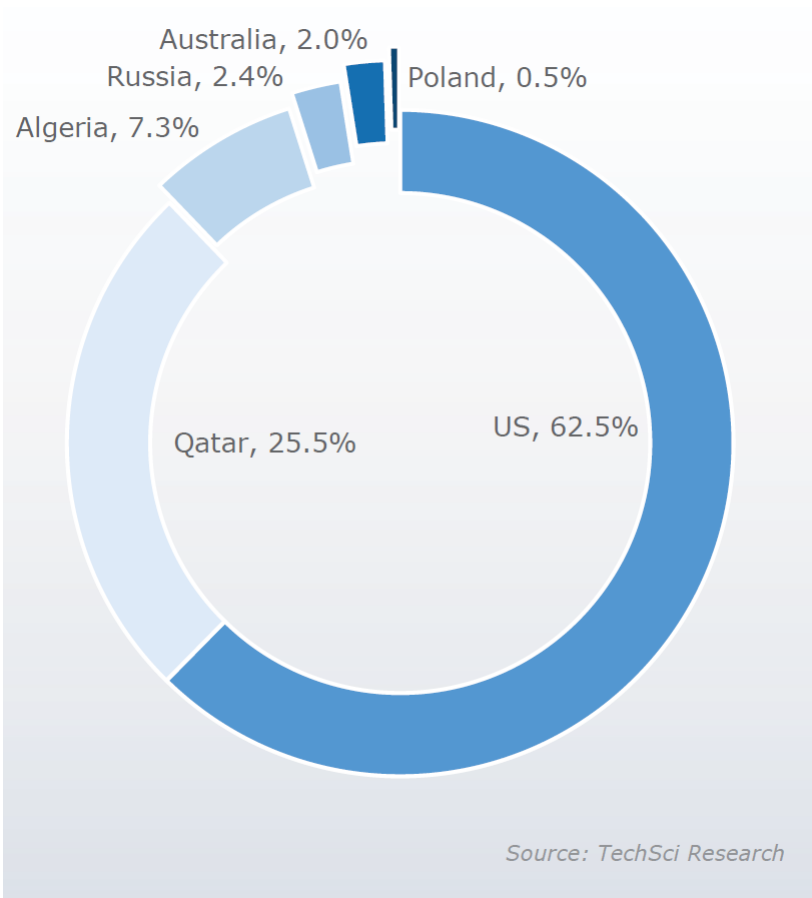
- Geophysicist with 25+ years technical and corporate experience in the oil & gas industry specialising in commercial and business development
- Co-founder of Ophir Energy Plc

# HELIUM USES



- Helium is required for superconducting due to it being non-combustible and a liquid at ultra-low temperature ( $-269^{\circ}\text{C}$ ). There is no substitution for this.
- Increasingly viewed as a high-tech element owing to its demand in electronics manufacturing
- Due to its unique properties, new applications for helium continue to emerge. Recent new applications include:
  - Computer hard drives,
  - Google X Project Loon
  - Hybrid Air Vehicles (Lockheed Martin)

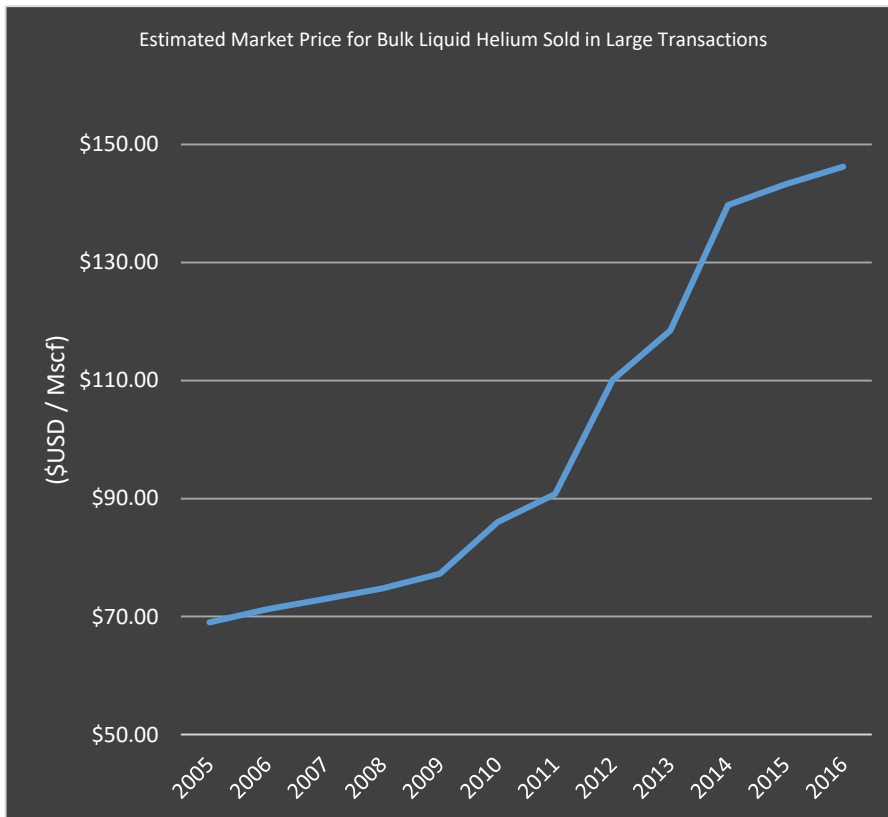
# CURRENT PRODUCTION



- USA and Qatar dominate supply (>80%)
- Current global demand is ~6.0 billion ft<sup>3</sup>
- The world's largest reserve is controlled by U.S. Bureau of Land Management (BLM)
  - 1.2 billion ft<sup>3</sup> sales in FY2015
  - Ceases public sales 30 Sept 2021
  - Auctioning remaining supplies
- Industrial gas companies and end users seeking to diversify sources of helium
- Current supply is predominantly a by-product of LNG and CO<sub>2</sub> production



# BULK LIQUID HELIUM MARKET

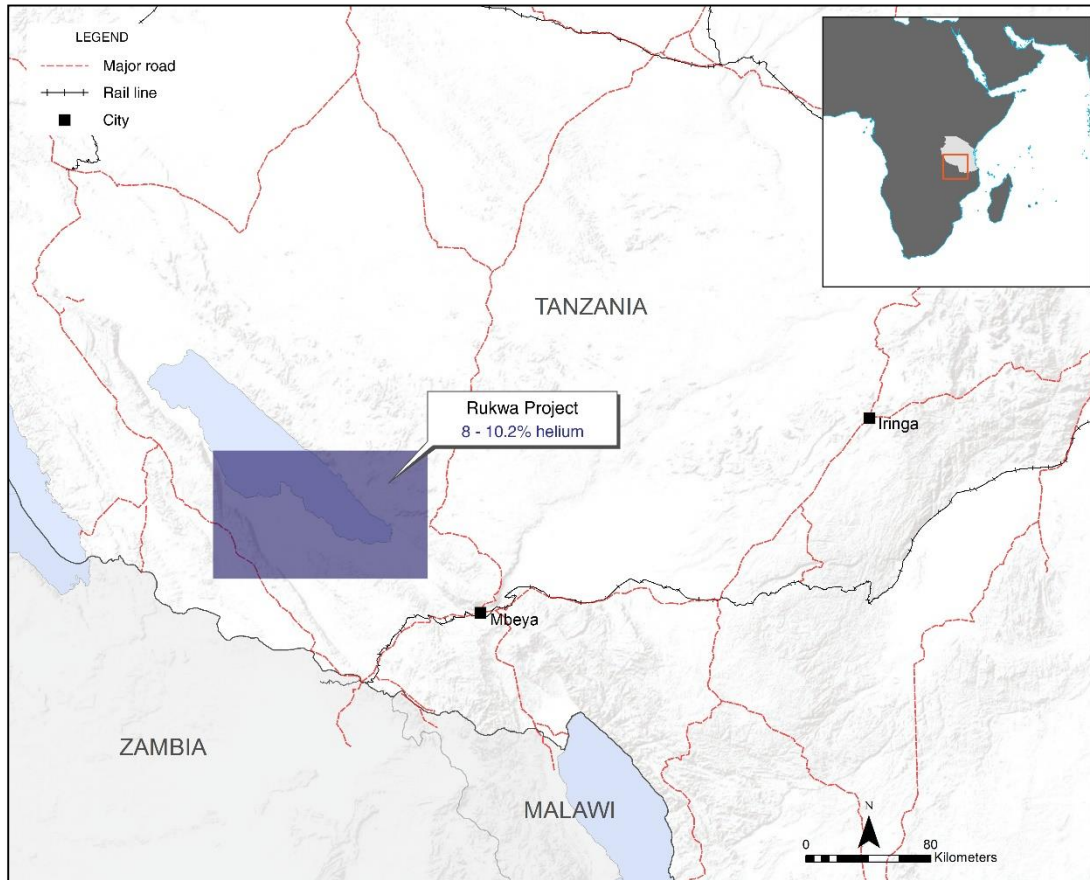


Source: Kornbluth Helium Consulting LLC

- Average market price for bulk liquid helium is in the range of \$140-\$150 per Mcf
- There is appetite in the market for distributors to replace the BLM capacity, with a higher price warranted for long-term security of product
- The helium shortage of 2011-2013 was caused by factors including: LNG refinery equipment failures, shutdowns and scheduled maintenance
  - Bulk liquid helium prices peaked in the range of \$220-275 per Mcf, ex-works
- Current lack of supply diversity, and not being leveraged to the production of another commodity represent opportunities for our Company



# RUKWA PROJECT



Location	Approx. 40km NW of Mbeya
Licence area	Approx. 3,700 sq. km
Interests	Helium One Ltd (100%)
Prospects & Leads	28
Resource	98.9 billion standard ft <sup>3</sup> unrisked prospective recoverable (P50)
Helium %	Up to 10.2%
Exploration status	Two legacy oil exploration wells & >1,000km 2D seismic
Prospecting Licence expiry	September 2022 (extendable to 2026)

“there needs to be a thermal release of helium from the ancient crustal material, which is why high helium deposits are so rare. Tanzania meets this very rare criterion as it sits atop an active ‘spreading centre’, which results from a deep mantle plume (Oxford University - Professor Chris Ballentine & Dr Peter Barry, 2016)”

## Immediate Work Programme & Production Target

- Exploration activities prior to drilling are required in order to prioritise and de-risk drill targets
- The drill programme will transition to development drilling, based on success
- Production of 0.35 billion ft<sup>3</sup>/p.a. is proposed for Q1 2020, predicated on drill success – ramping to a target of 2 billion ft<sup>3</sup>/p.a. soon thereafter, financed by revenues



# MODULAR LIQUID HELIUM PROCESS PLANT



Skid-mounted modular liquid helium production facility

- 0.35 billion ft<sup>3</sup> production per annum

Delivered to site in 12 x 40' shipping containers

Includes:

- Pressure Swing Adsorption (3 x containers)
- Membrane extraction unit (1 x container)
- Liquefaction (2 x containers)
- Liquid nitrogen unit (3 x containers)
- Compressors (1 x container)
- Genset (1 x container)
- Office (1 x container)



Cost: US\$ 53.9m (including 10% contingency)

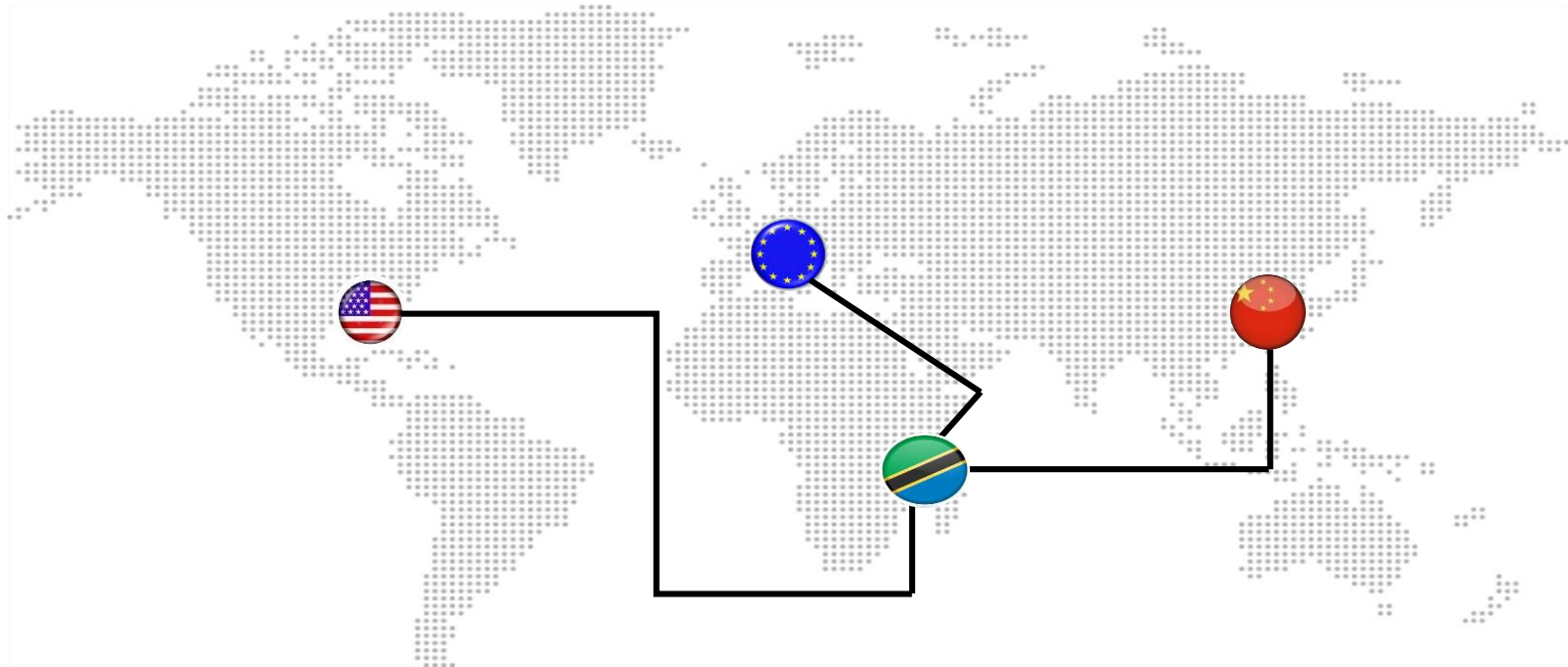
# PATHWAY TO MARKET

Destination	via	Duration	Line(s)	Frequency
South Carolina (USA)	Durban (SA)	28*	MSC	Weekly
Singapore	N/A	16	MOL / CMA-CGM	Weekly
Shanghai	Malaysia	27	CMA-CGM	Weekly
Shanghai	Singapore	27	MOL	Weekly
Busan (Korea)	Malaysia	25	CMA-CGM	Weekly
Kobe (Japan)	Malaysia	32	MOL / Maersk	Weekly

\*not including DSM to DUR



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