quantum helium

AIM: QHE

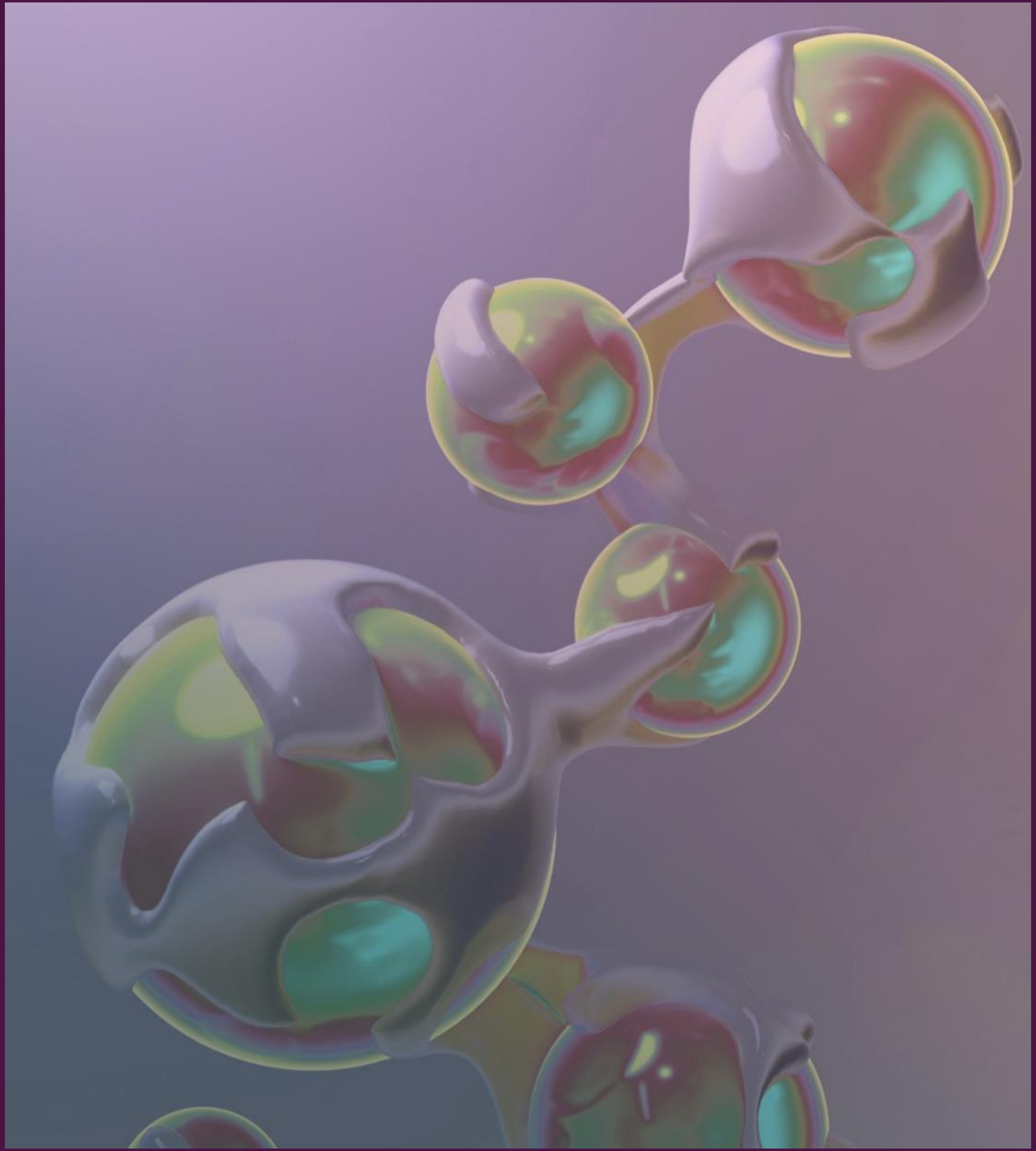
Discovery to Growth

Sagebrush/Coyote Wash are the foundation for a multi-year Colorado helium and oil growth platform

- 1.104 Bcf independently assessed 2U helium resource — one of the largest positions of any company listed on the London Stock Exchange
- Sagebrush: proven helium discovery (~2.5% He) plus new Leadville oil discovery
- Five additional drilling opportunities identified through integrated technical evaluation, including near-term Little Ute SE and Yellow Jacket SE oil targets
- Located in the proven Four Corners helium fairway with existing helium pipelines, liquefaction facilities and oil production infrastructure
- US OTC listing approved - expected September 2026
- Strong cash position following £5m institutional capital raise

Market Cap: ~£11m

Helium spot: ~$1,000/mcf (tight global supply)



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Why Now?

The macro environment has never been more favourable for helium

Helium Supply Shock

Middle East disruption has severely constrained global helium supply, with key facilities offline and exports curtailed.

Spot Price ~$1,000/mcf

Helium pricing has surged to ~$1,000/mcf - reflecting structural tightness, not just a temporary spike.

AI & Semiconductor Demand

Explosive AI data centre buildout and advanced chip manufacturing drive rapidly escalating helium consumption.

Limited New Supply

Very few new helium projects are ready to produce. Quantum is advancing towards commercial helium development at a time of exceptional market fundamentals.

Quantum Helium is positioned to capitalise - with a proven discovery, advancing towards commercial helium development and a multi-year growth pipeline

Key Personnel

Experienced team with deep US helium, oil & capital markets expertise

Howard McLaughlin

CEO

Former VP Global Exploration at BHP. Extensive US oil & helium exploration experience.

Carl Dumbrell

Executive Chairman

Capital markets and corporate finance specialist. 20+ years in taxation and assurance in Australia and England.

Andrew Scott

Executive Director

Extensive small-cap growth and capital markets expertise across LSE and ASX. Strong advisory background.

Graham Duncan

Non-Executive Director

25+ years capital markets experience. Led new LSE admissions and CFO roles. Chartered Accountant.

Nigel Harvey

Non-Executive Director

Extensive Asia-Pacific investment banking experience in energy derivatives, with senior roles at JP Morgan, Barclays and Macquarie.

Core Projects – De-risked & Drill Ready

Sagebrush-1

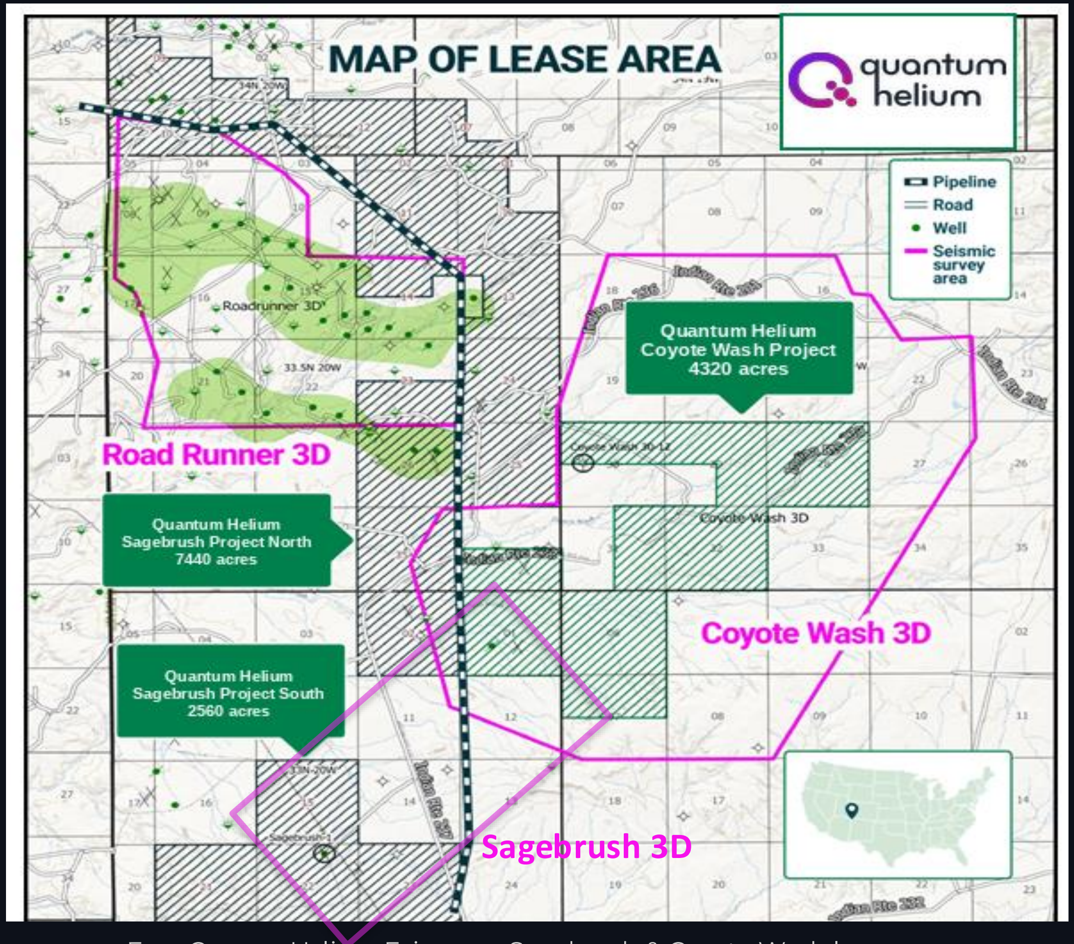
90% Interest · Operator

- Proven helium discovery — ~2.5% He confirmed by EPT
- Existing cased well — no new drilling required to test
- Extended Production Test confirms helium and oil — engineering assessment advancing
- Integrated technical evaluation strengthens understanding of Sagebrush and identifies five additional drilling opportunities across and adjacent to Quantum's wider Colorado acreage

Coyote Wash

100% Interest · Operator

- 0.97 Bcf helium (2U) — Sproule ERCE verified
- Oil upside — 750k bbl gross 2U Ismay oil resource
- 6 Leadville prospects identified through integrated technical evaluation
- Forms part of Quantum's broader Colorado growth programme



Four Corners Helium Fairway · Sagebrush & Coyote Wash lease areas

Combined 1.104 Bcf gross 2U helium | ~14,000 acres | Four Corners helium fairway | Near existing pipeline infrastructure

Sagebrush – Imminent Value Catalysts

The foundation for Quantum's multi-year Colorado growth platform

1

Proven Discovery

- 2.76% helium from historic testing
- Existing cased well — no new drilling to test
- Leadville fractured Carbonate reservoir confirmed

2

Advanced Technical Evaluation

- High-resolution 3D seismic acquired and interpreted
- Confirms structural closure and extent
- Five Additional helium targets identified

3

Extended Production Test

✓ INITIAL PHASE COMPLETED

- Helium (~2.5%) and oil confirmed
- Reservoir connectivity established
- Commercial oil discovered - new Leadville play

4

Commercial Development

▸ NEXT CATALYST

- Engineering and optimisation assessment underway
- More extensive stimulation and testing programme defined and executed
- Designed to increase reservoir contact and improve flow performance

Integrated technical evaluation has identified five additional drilling opportunities across and adjacent to Quantum's wider Colorado acreage

Coyote Wash – Growth Pipeline

Independently assessed, drill-ready helium & oil potential

0.97 Bcf	6	750k bbl
Gross 2U Helium (Sproule ERCE)	Leadville Prospects	Gross Prospective Oil (Ismay Fm)

- **Resource Quality**

  Sproule ERCE confirms 0.97 Bcf 2U gross recoverable helium from Leadville Carbonates.

- **Technical Evaluation**

  Integrated technical evaluation confirms strong structural closure on all 6 Leadville prospects.

- **Follow-On Potential**

  Six Leadville prospects provide significant follow-on drilling potential

- **Oil Upside**

  Ismay Formation oil prospects identified; 750k bbl gross recoverable (2U).

- **Combined Portfolio**

  Together with Sagebrush, Quantum holds 1.104 Bcf of independently assessed helium - one of the largest positions of any LSE-listed company.

- **Scale Potential**

  Multi-well drilling potential provides long runway of follow-on growth activity.

Forms the second pillar of Quantum's Colorado growth strategy

Helium Commercialisation – Separation Process

Feed: 40% CO_2 34% N_2 19% CH_4 3% LPG 2.76% He | Target: 99.999% pure helium

He Helium ~$1,000/mcf spot | 99.999% purity

1) Feed Inlet & Separation

Slug catcher / 3-phase separator. Remove free water, condensate, solids.

›

2) Heavy HC Removal

Chilling/JT + separator. Recover LPG (C3+). Protect cryogenic section.

›

3) Dehydration & Polishing

Molecular sieve drying. Optional guard beds. Cryo-grade dryness achieved.

›

4) Bulk CO_2 Removal

Selexol / MDEA / membrane hybrid. Reduce CO_2 to cryo-safe spec.

5) Cryogenic He Concentration

Cool/expand as needed. He enriches in overhead gas.

›

6) N_2 Rejection / CH_4 Recovery

Optimise CH_4 recovery vs He loss. Route CH_4-rich stream to fuel/power.

›

7) Final He Purification ★

PSA/VSA + polishing. Target 99.999% He. Stabilise impurities.

›

8) Product Compression ★

Compress purified He. Tube trailer loading. Custody transfer.

CH_4 Methane

- Power generation on-site
- Reduce operating costs
- Gas sales to grid

CO_2 Carbon Dioxide

- EOR injection potential nearby
- ELK Petroleum expressed interest
- Potential sequestration credits available

Low capex route to first production: on-site separation + trucking to existing liquefaction facilities ★ Steps 7 & 8 deliver 99.999% pure helium ready for sale

Sagebrush Execution Timeline

Q1–Q2 2026

Near-Term

- Extended Production Test — initial phase completed
- Helium and oil confirmed
- Engineering evaluation underway
- Field Development planning advanced

Q3–Q4 2026

Engineering & Optimisation

- Engineering and optimisation assessment of Sagebrush
- Larger stimulation and testing programme being defined
- Execution of engineering recommendations
- US OTC listing targeted (September 2026)

H1 2027

Development & Preparation

- Permitting and follow-on drilling planning progressed
- Final well design & drilling programme
- Commercialisation pathway finalised
- Development engineering progressed

H2 2027 - 2028

Development & Commercialisation

- Target first helium production
- Facility commissioning
- Commercial operations
- Additional prospect drilling on the Colorado acreage
- Growth and optimisation

Engineering assessment and reservoir optimisation advancing towards follow-on drilling and commercial helium development

Sagebrush EPT Results

What we know so far - the Extended Production Test de-risks the Leadville reservoir

1

Helium Confirmed

- Approximately 2.5% He confirmed by lab analysis
- Consistent with 2.76% historic test
- Well above typical 0.3–1.0% industry concentrations

2

Acid Stimulation

- Acid stimulation test programme completed
- Excellent connectivity established with natural fracture system
- High injectivity confirms significant natural fracture network

3

Reservoir Pressure

✓ DE-RISKED

- Pressure build-up to >70% of virgin reservoir pressure
- Reached within 4 days of stimulation, estimated to >90% with additional build up time
- Gas composition matches original 1993 drill stem test

4

Engineering & Optimisation

- Engineering and optimisation assessment underway
- Larger stimulation and testing programme being defined
- Programme designed to increase reservoir contact

Objective: optimise the long-term production opportunity to deliver significant commercial value and growth potential

Commercial Oil Discovery

Creating additional value alongside the helium resource

1

Commercial Discovery

- Commercial oil confirmed from Leadville Formation
- New oil play not included in prior helium resource assessment
- Not previously demonstrated in the Sagebrush area

2

Revenue Generated

- 80+ barrels recovered during testing to date
- Contributed to Q2 2026 oil revenue of $208k
- H1 2026 gross oil revenue of $316k, up 92% Q1 to Q2

3

Additional Value

- Creates an additional revenue opportunity alongside helium
- Potential target rates of up to 40 bbl/day gross before royalties
- Sproule ERCE to review oil data as part of updated resource assessment

4

Next Steps

- Engineering assessment evaluating further stimulation and testing
- More extensive stimulation and testing programme being defined
- Oil incorporated into broader Sagebrush commercial evaluation

“A significant and value-enhancing outcome — not anticipated prior to testing”

Oil Revenue Today. Helium Growth Tomorrow.

Generating revenue while advancing commercial helium development

Existing Production

Sagebrush • Revenue Generating

- Commercial oil production established
- 80+ barrels recovered during Sagebrush testing to date
- Q2 2026 gross oil revenue: US$208k
- H1 2026 gross oil revenue: US$316k

Why It Matters

Strategic Rationale

- ✅ Provides an additional revenue stream
- ✅ Supports ongoing commercial development
- ✅ Demonstrated commercial hydrocarbon production
- ✅ Additional oil potential identified across Colorado acreage

Existing Oil Production › ***Supports Commercial Development*** › **Commercial Helium Production**

Quantum is advancing helium development while generating oil revenue today, creating a diversified platform to deliver commercial value and long-term growth

Integrated Technical Evaluation – Near-Term Prospect Drilling

Little Ute SE

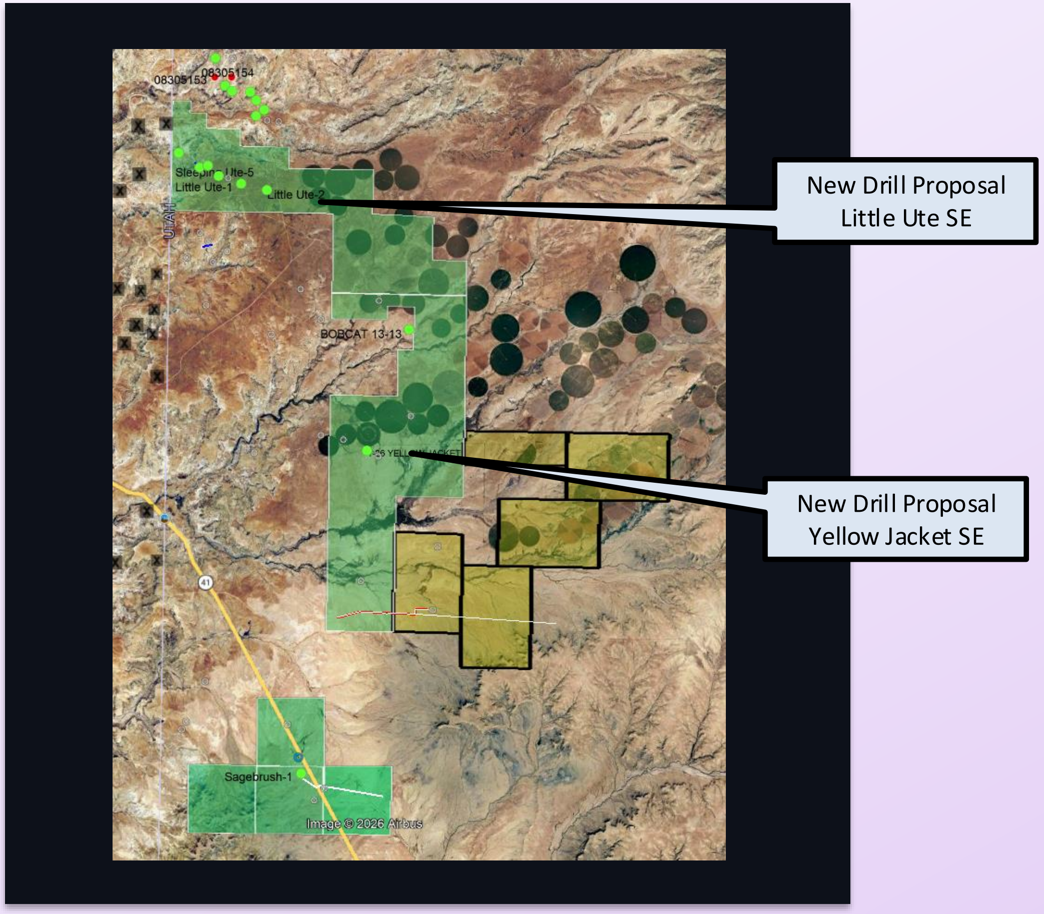
- Quantum Acreage

- Interpreted extension of the Upper and Lower Ismay reservoirs
- Supported by integrated seismic, historic drilling and production data
- Permit to Drill application underway

Yellow Jacket SE

- Quantum Acreage

- Interpreted extension of the productive Upper Ismay trend
- Supported by integrated technical evaluation
- Permit to Drill application underway



Quantum acreage shaded Green and Yellow · Two lowest-risk candidates

Two lower-risk oil drilling opportunities prioritised for their potential to generate near-term cash flow | Permit to Drill applications underway

Integrated Technical Evaluation – High-Impact

Mariano Wash SE

- Lower Ismay Oil

- Lower Ismay oil target with a secondary Upper Ismay objective, interpreted as an extension of existing production
- Possible satellite locations

Lula

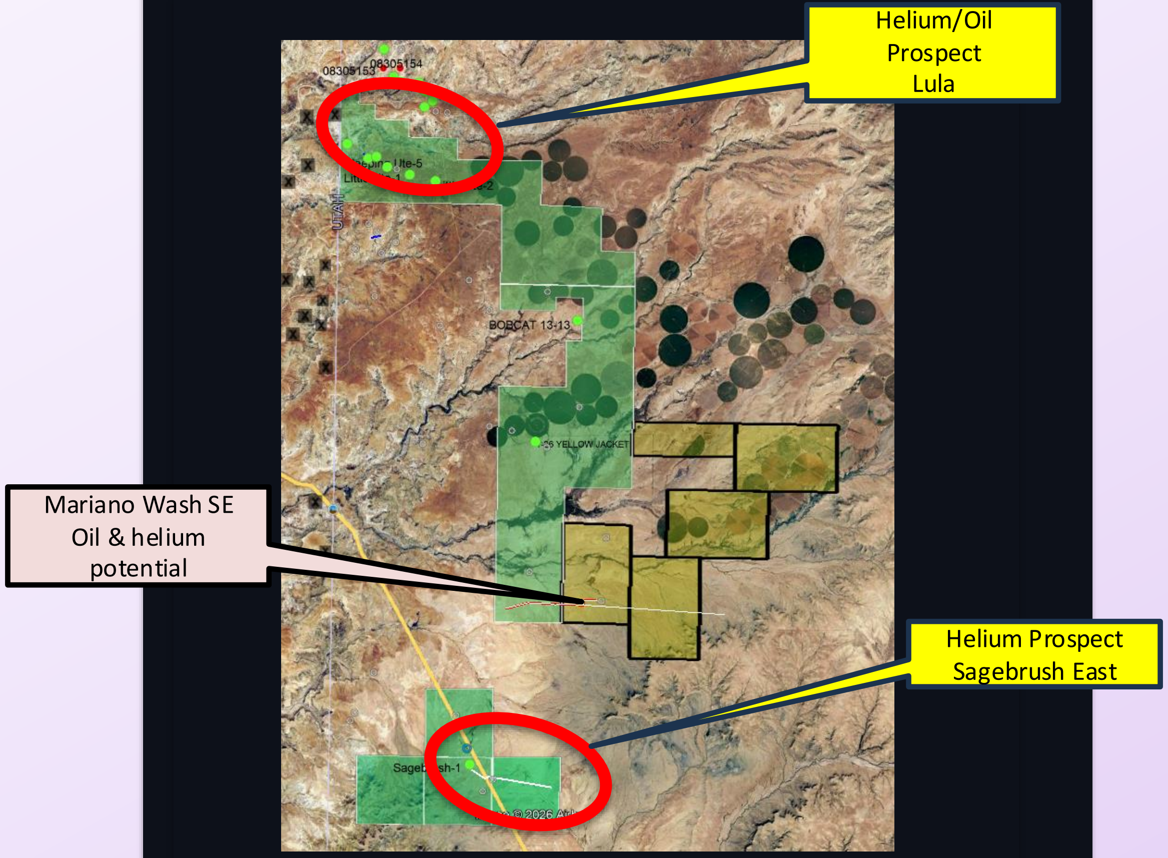
- Mississippian Helium & Oil

- Larger-scale Mississippian helium and oil opportunity
- Potential multi-Bcf gas accumulation with helium concentrations potentially around 1–2% or higher
- Located on additional acreage Quantum is seeking to acquire

Sagebrush East

- Mississippian Helium & Oil

- Higher-impact Mississippian helium and oil prospect associated with the wider Sagebrush-1 structure
- Under continued technical evaluation



Near-term field extensions building into big-impact helium plays

3 higher-impact candidates - larger helium & oil potential | Drillable in 12–24 months | Targeting mix of oil and helium follow-on drilling

Building a Colorado Growth Company

From discovery to a multi-field helium and oil producer

TODAY

Establishing the Foundation

- ✓ 1.104 Bcf independently assessed helium resource
- ✓ Existing oil production and revenue
- ✓ Sagebrush engineering and optimisation programme

NEXT

Executing the Growth Strategy

- ✓ Sagebrush optimisation and commercial development
- ✓ Two lower-risk oil drilling opportunities
- ✓ Three higher-impact helium and oil opportunities

FUTURE

Expanding the Platform

- ✓ Additional producing assets
- ✓ Value-accretive Colorado acreage acquisitions
- ✓ Multi-field helium & oil business

Building a scalable Colorado helium and oil business through disciplined development, organic growth and selective acquisitions

quantum helium

AIM: QHE

Capital Structure

Shares in Issue

~500 million

Market Capitalisation

~£11m **(25 August 2026)**

Share Price

~2.1p **(25 August 2026)**

Shares Not in Public Hands

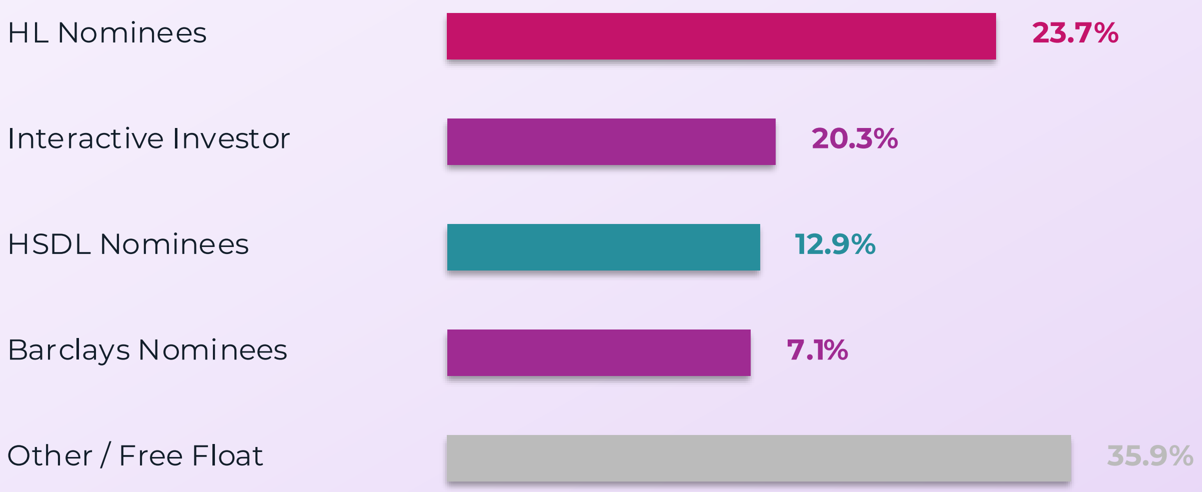
1.6% (8.05m shares)

Board Shareholdings — Strong alignment with shareholders

A. Scott: 2.27m | C. Dumbrell: 1.81m | N. Harvey: 1.58m

G. Duncan: 1.17m | H. McLaughlin: 0.61m

Top Shareholders



Share consolidation completed; directors' interests remain fully aligned with shareholders

Investment Summary

Quantum Helium | AIM: QHE

- ✓ Proven helium discovery at Sagebrush
- ✓ 1.104 Bcf independently assessed helium resource - one of the largest positions of any company listed on the London Stock Exchange
- ✓ Sagebrush engineering and optimisation programme advancing the next stage of commercial development
- ✓ Existing oil production plus new commercial oil confirmed within the Leadville Formation
- ✓ Five additional drilling opportunities identified at Sagebrush - progressing through permitting
- ✓ Additional Colorado acreage opportunities under evaluation
- ✓ US OTC listing expected September 2026

Quantum already holds one of the largest independently assessed helium resource positions of any company listed on the London Stock Exchange. With Sagebrush progressing through engineering and optimisation, five additional drilling opportunities identified across and adjacent to its Colorado acreage, and further acreage expansion opportunities under evaluation, the Company is building the foundations for a multi-field helium and oil growth platform