

# Discovering Critical Metals for the Future

**Cactus Copper-Gold Project, Utah, USA**

**Minas Gerais Lithium Projects, Brazil**

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*“The visual estimates and pXRF spot readings on the core from the second and third holes drilled into the New Years prospect at Cactus are very exciting with both indicating that near surface high grades of copper mineralisation have been intersected. There is also clear evidence that copper rich sulphide mineralisation occurs deeper in the breccia pipe.”*

*“In Brazil, Salitre is a drill ready target and assay results for Itambacuri, Carai and Itaipe stream sediment samples are highly anomalous in lithium and REE.”*

**Alderan Resources Managing Director Scott Caithness**

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# Disclaimer

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**References to Previous ASX Announcements** – The information in this presentation that relates to historical exploration results were first reported by the Company in accordance with listing rule 5.7 on 28 June 2017, 21 August 2017, 12 September 2017, 28 September 2017, 30 October 2017, 15 December 2017, 17 January 2018, 5 March 2018, 29 March 2018, 12 March 2019, 18 November 2019, 25 March 2020, 16 April, 2020, 20 May 2020, 19 August 2020, 28 August 2020, 22 September 2020, 22 February 2021, 8 March 2021, 11 March 2021, 11 May 2021, 9 June 2021, 11 June 2021, 24 August 2021, 30 September 2021, 18 November 2021, 30 December 2021, 25 February 2022, 22 March 2022, 5 April 2022, 11 May 2022, 25 May 2022, 6 June 2022, 27 June 2022, 3 August 2022, 28 September, 2022, 30 September 2022, 2 November 2022, 14 December 2022, 30 December 2022, 14 February 2023, 20 September 2023, 3 October 2023, 26 October 2023, 13 November 2023, 5 December 2023, 23 January 2024, 22 February 2024, 13 March 2024, 8 April 2024, 29 April 2024, 30 May 2024, 18 June 2024, 25 June 2024, 3 July 2024, 8 July 2024, 23 July 2024, 29 July 2024, 29 August 2024, 19 September 2024, 30 September 2024 and 7 October 2024. Alderan confirms it is not aware of any new information or data that materially affects the information included in the original market announcements.

All figures in this document are in Australian dollars (AUD) unless stated otherwise. An investment in Alderan should be considered speculative in nature.

This presentation has been approved for release by the Board of Alderan Resources Limited.

# Projects Overview

## Focused on discovery of critical metals in the USA and Brazil



- **Cactus project** in Utah, USA targeting high grade copper-gold deposits using a new model and new data
- Post mining (1957-) higher grade drill intersections at Cactus deposit include **4.9m @ 6.72% Cu, 22.9m @ 2.06% Cu, 41m @ 1.9% Cu, 0.62g/t Au, 22.9m @ 1.84% Cu**
- New Years prospect historical drill intersections include **13.7m @ 2.32% Cu, 10.7m @ 1.6% Cu and 10.7m @ 1.52% Cu** all within intervals up to 42m grading >0.80% Cu
- **Visible high grade copper** in Alderan's New Years drilling- pXRF grades to 23.2% Cu
- **Next steps** – mapping, soil sampling, geophysics and drilling in Q4, 2024 - Q1, 2025



- **Seven lithium exploration projects** in Brazil's 'Lithium Valley' covering 472km<sup>2</sup> in mineral rich Minas Gerais State plus the Salitre lithium project in Bahia
- Targeting margins of lithium-caesium-tantalum (LCT) granites (G4) with pegmatites, indicator minerals & artisanal mining within and peripheral to project areas
- Artisanal mines and lithium indicator minerals, beryl and tourmaline identified
- **Stream sediment sampling completed** – anomalous Li and REE at Itambacuri, Carai and Itaípe to date; Salitre a 4.5km long Li in soil anomaly
- **Next steps** – followup of stream sediment anomalies and drill traverses at Salitre

# Highly experienced Board & Executive Team

Alderan's USA team has +100 years project identification, operational & commercial experience



## **Tom Eadie - Non-Executive Chair**

Geologist & geophysicist with 40 yrs experience. Founding chair of Syrah Resources, Copper Strike & Discovery Nickel. Chair of Southern Cross Gold. Former Executive GM Exploration & Technology, Pasminco Limited.

BSc (Hons) Geology/ Geophysics - University of British Columbia; MSC Geophysics – University of Toronto; Grad Diploma in Applied Finance & Investment



## **Scott Caithness - Managing Director**

Geologist with 40 yrs experience in mineral exploration in Australia, Asia, Africa and the Pacific. Former roles include Director Exploration for the Vedanta group, co-founder and MD of Indian Pacific Resources (now Akora Resources (ASX: AKO)), Austrade Senior Trade Commissioner to Malaysia & Brunei and GM Exploration, Rio Tinto Exploration.

BSc (Applied Geology) – RMIT University; GAICD



## **Peter Williams - Non-Executive Director**

Geophysicist & Manager of Geoscience Technology at WMC Resources. Founding member of Independence Group and founding Director of Ampella Mining.

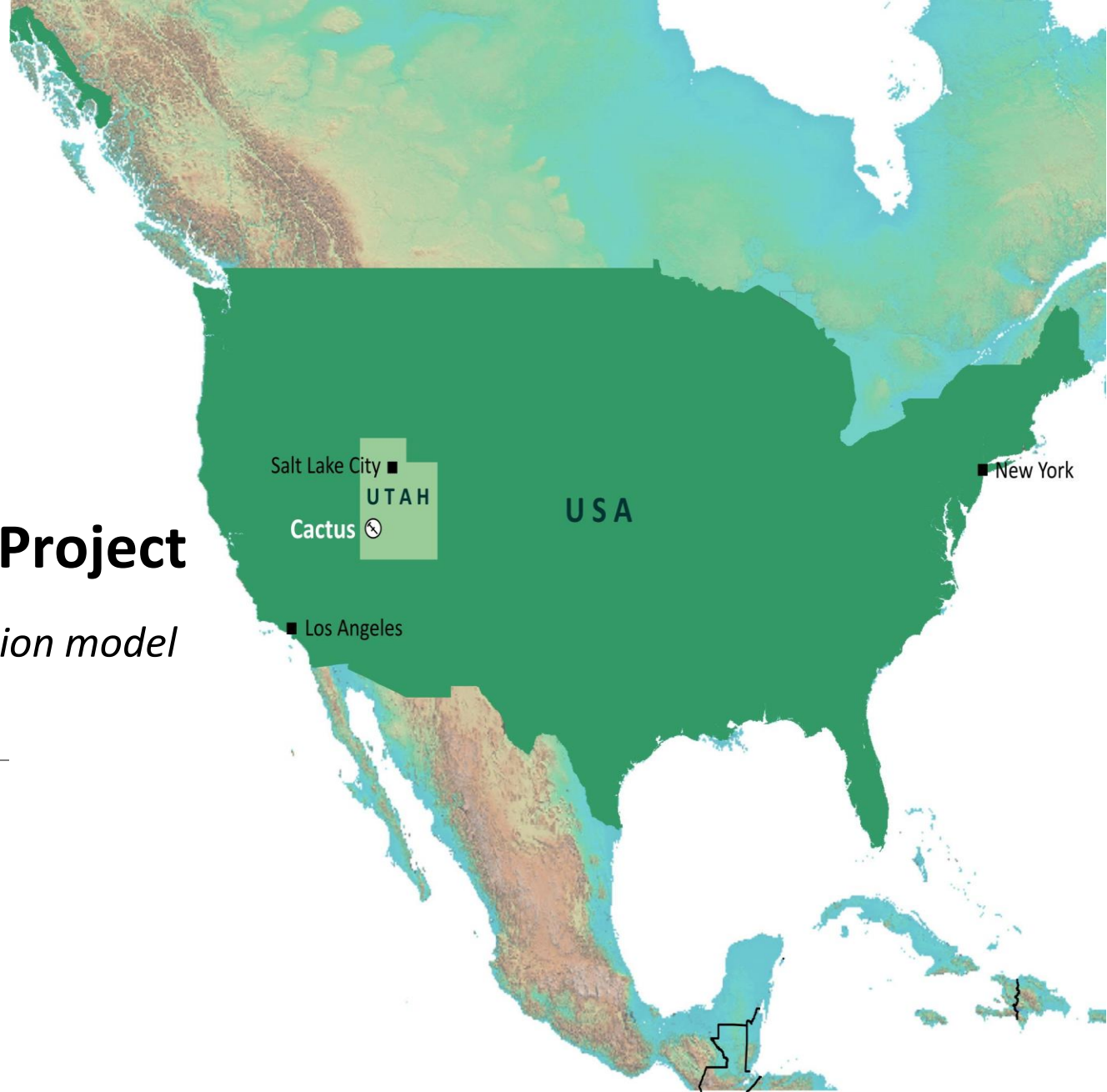
MSc Geophysics Engineering – Colorado School of Mines; Adjunct Professor, Centre for Exploration Targeting – University of Western Australia

# Cactus Copper-Gold Project

*New Data and a new exploration model*

*Utah, USA*

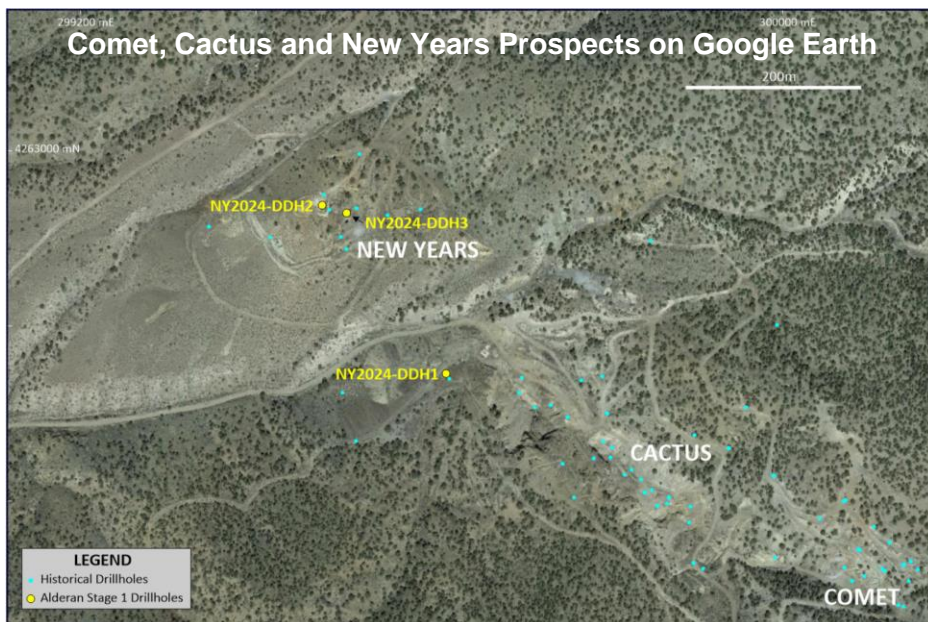
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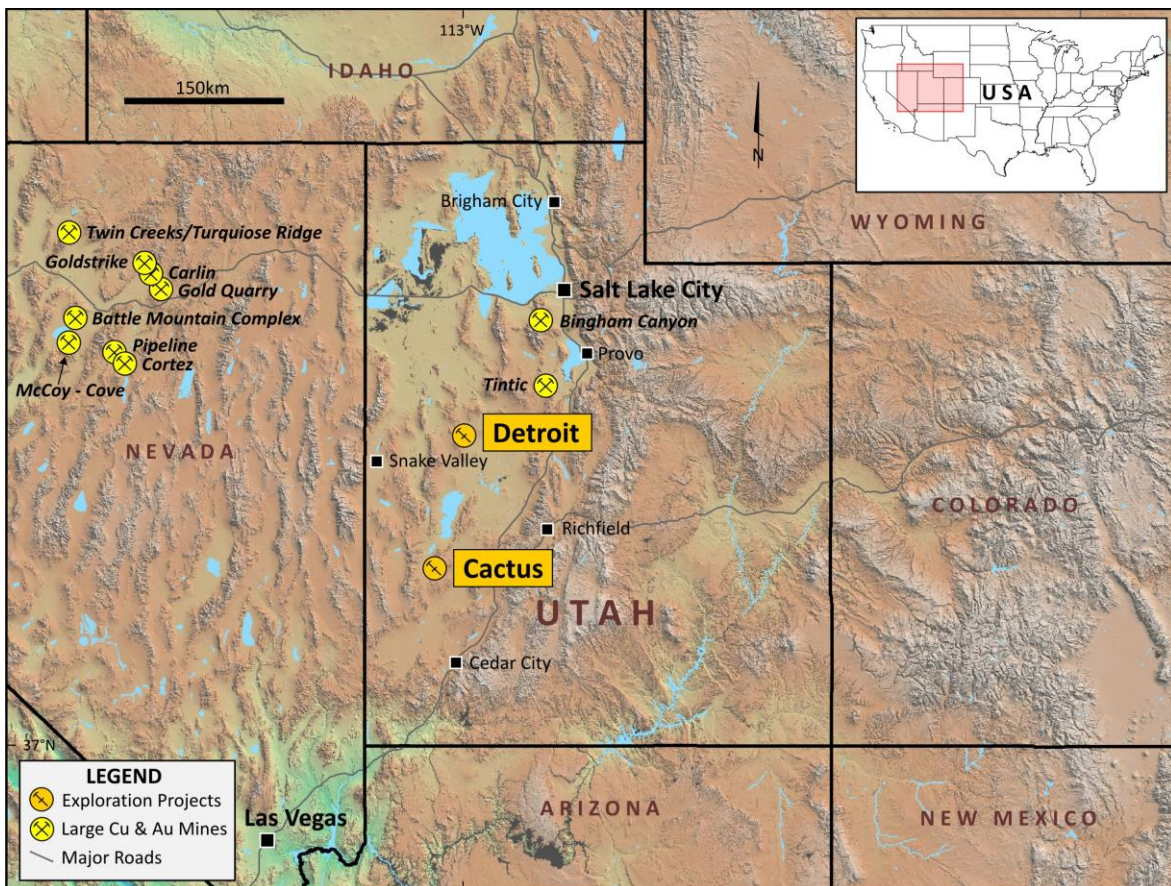
# Highlights: High Grade Copper in New Years Drilling

- **High grade copper** in Alderan holes NY2024-DDH2 and NY2024-DDH3 supported by averaged **pXRF copper assay intervals up to 23.2% and 17.3%** respectively.
- Hole NY2024-DDH2 intersected **30m of visible copper oxide mineralisation** from 10m down hole.
- Hole NY2024-DDH3 intersected **25m of visible copper oxide mineralisation** from surface plus **19m of copper sulphides** from 73m down hole.



- Mineralisation occurs in the same host rock as the neighbouring historical Cactus deposit which mined 2.0% copper ore.
- Alderan's holes may have significantly extended the mineralisation reported in historical holes – lab assays to come.

# Cactus: High Grade Copper-Gold Deposit Potential



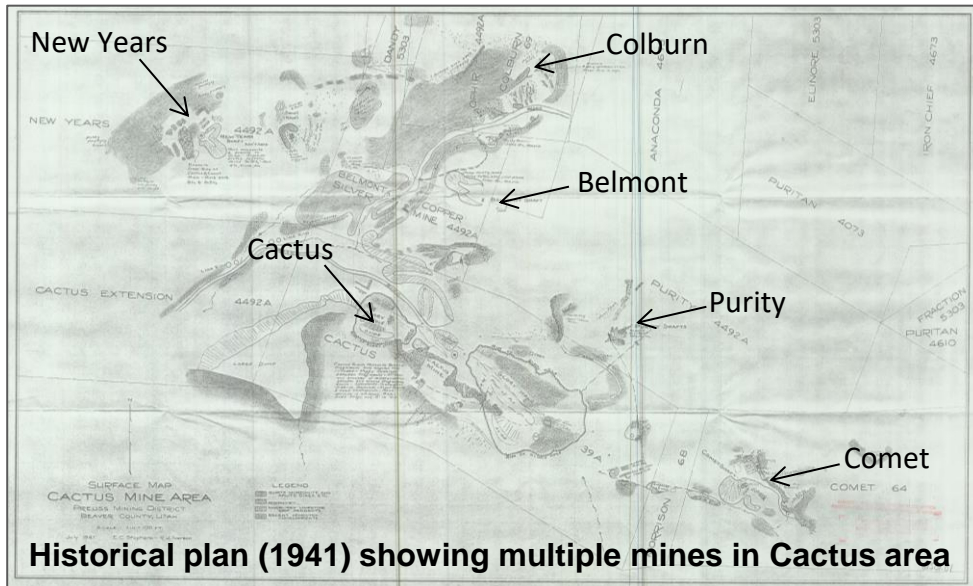
- Utah - a Tier 1 mining jurisdiction
- 1<sup>st</sup> on Fraser Institute 2023 ranking of investment attractiveness
- Excellent access to infrastructure – road, rail & power
- World ranked copper and gold mining districts in Utah and neighbouring Nevada
- **Cactus** is an historical copper-gold mining district with multiple historical copper-gold mines associated with breccias
- Alderan has new data and a new exploration model
- Visible and high grade pXRF copper in Alderan drilling at New Years prospect



# Cactus: A Brief History



Cactus adit entrance

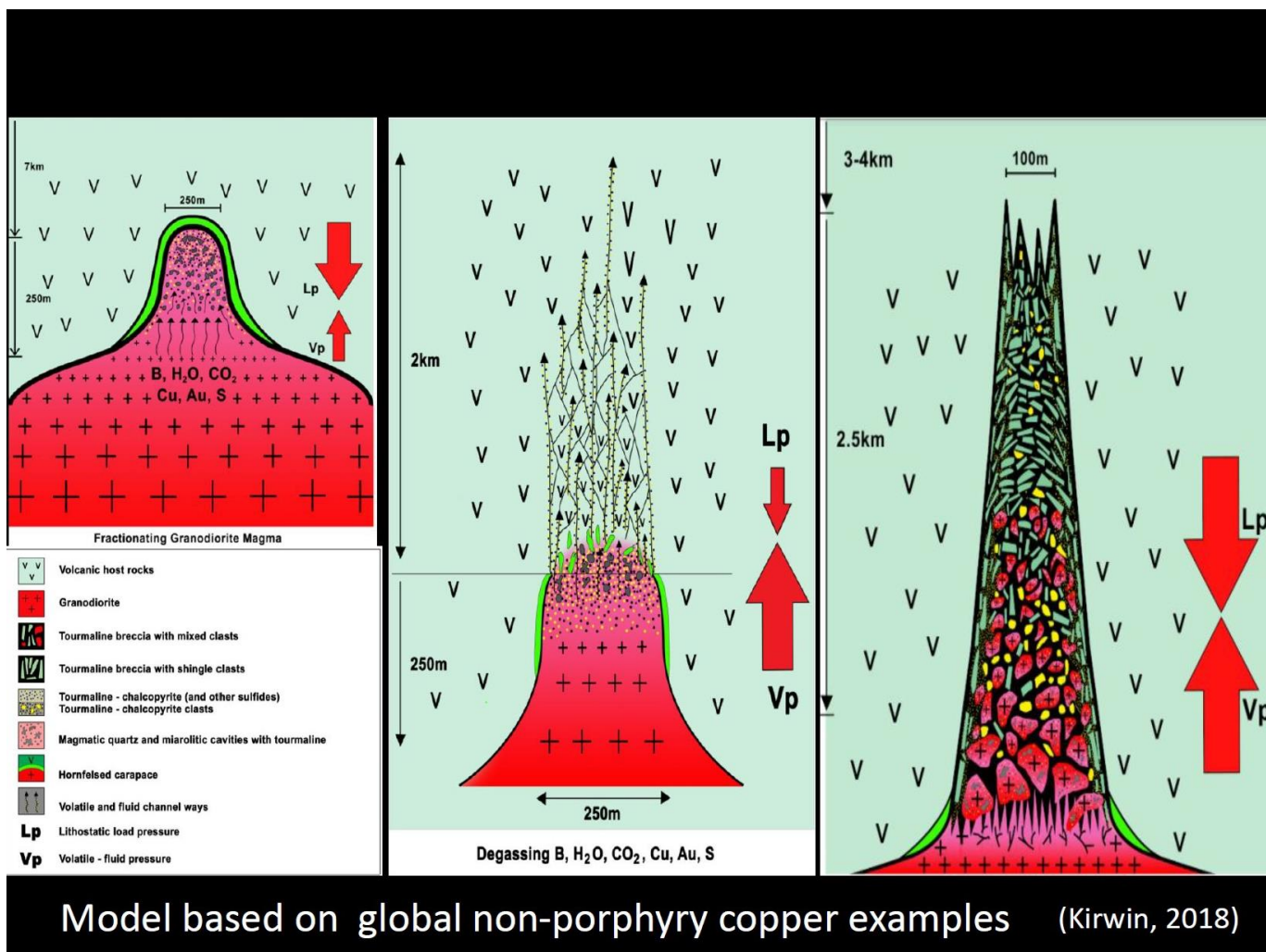


Historical plan (1941) showing multiple mines in Cactus area

**Alderan's Cactus district remains under explored for high grade breccia hosted copper-gold deposits**

- An historical copper-gold mining district from late 1800s to 1920 with multiple mine owners
- **Cactus mine** operations ran from 1905-1919 and closed due to licence boundary dispute
- Cactus reportedly produced 1.27Mt grading 2.07% Cu, 7.4g/t Ag and 0.33g/t Au from breccias
- Post mining high grade intersections at Cactus include:
  - **4.9m @ 6.72% Cu within 43.6m @ 1.69% Cu**
  - **12.2m @ 3.31% Cu within 22.9m @ 2.06% Cu**
  - **8.0m @ 3.11% Cu, 0.98g/t Au within 32.5m @ 1.24% Cu, 0.31g/t Au**
  - **12.2m @ 2.77% Cu within 25.9m @ 1.62% Cu**
  - **41m @ 1.9% Cu, 0.62g/t Au within 74m @ 1.1% Cu, 0.35g/t Au**

# Cactus: A New Exploration Model



Copper rich tourmaline breccias associated with intrusion related copper deposits

Deposit characteristics typically include:

- ✓ high Cu-Au grades with Cu-Au-Mo element signature
- ✓ occur in clusters
- ✓ elliptical shape with long axis following structural trend
- ? highest grades on margins of breccias
- ? flare at depth
- ? Vertical extents of >1km

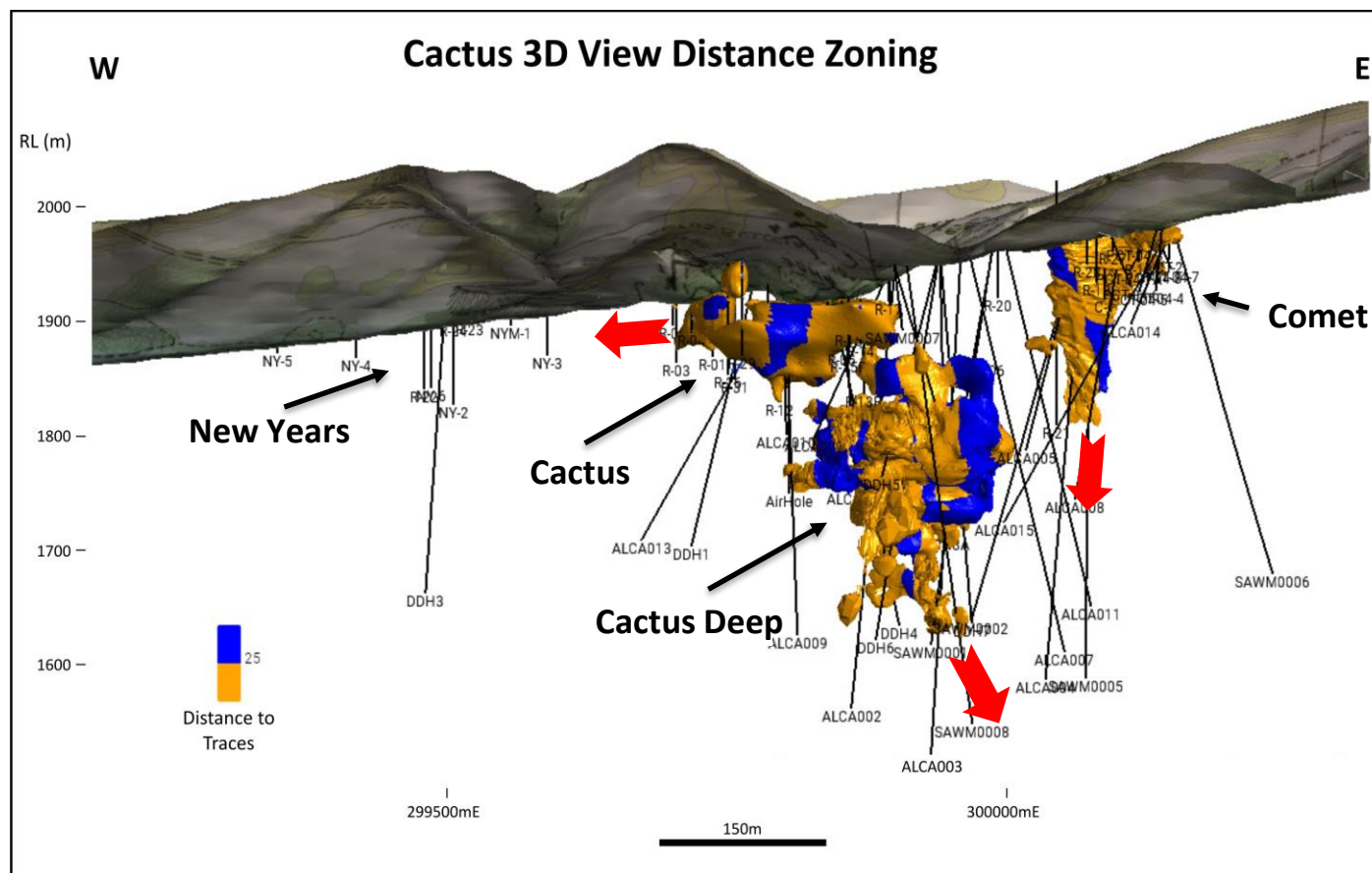
Example includes Pilares Mine, Mexico

- Historical mining produced 19Mt @ 2.5% Cu, 25.7g/t Ag; Grupo Mexico current mine resource 71.8Mt @ 0.56% Cu (milling) plus 4.8Mt @ 0.44% Cu (SXEW)

# New Data - 3D Deposit Modelling

*New Years lies 400m from Cactus along the Cactus Canyon fault trend, has outcropping copper mineralised breccia plus high grade historical drill intersections and had received no exploration since 1964*

- Cactus and Comet are open at depth and to the NW along Cactus Canyon Fault and have potential for additional mineralisation on margins of deposits (blue areas)
- **New Years identified as a new target** where higher grade historical drill intersections (1964 & 2002) include:
  - **13.7m @ 2.32% Cu within 19.8m @ 1.67% Cu from 22.9m**
  - **10.7m @ 1.52% Cu within 27.4m @ 0.85% Cu from surface**
  - **10.7m @ 1.60% Cu and 4.6m @ 1.3% Cu within 42.7m @ 0.80% Cu from surface**

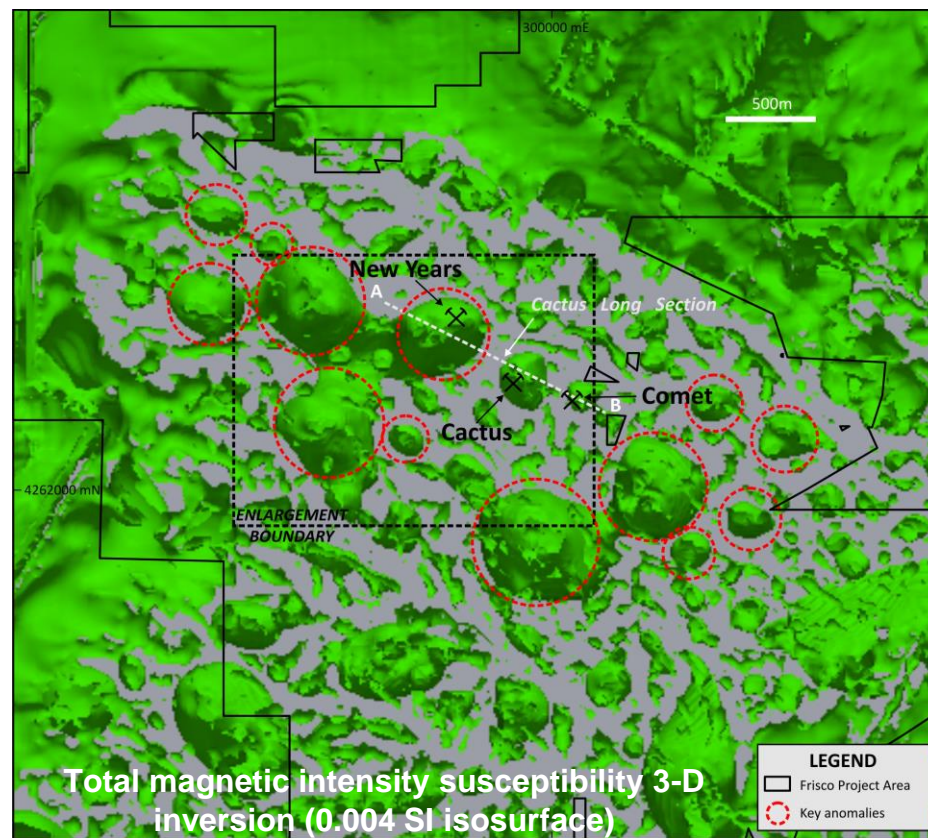
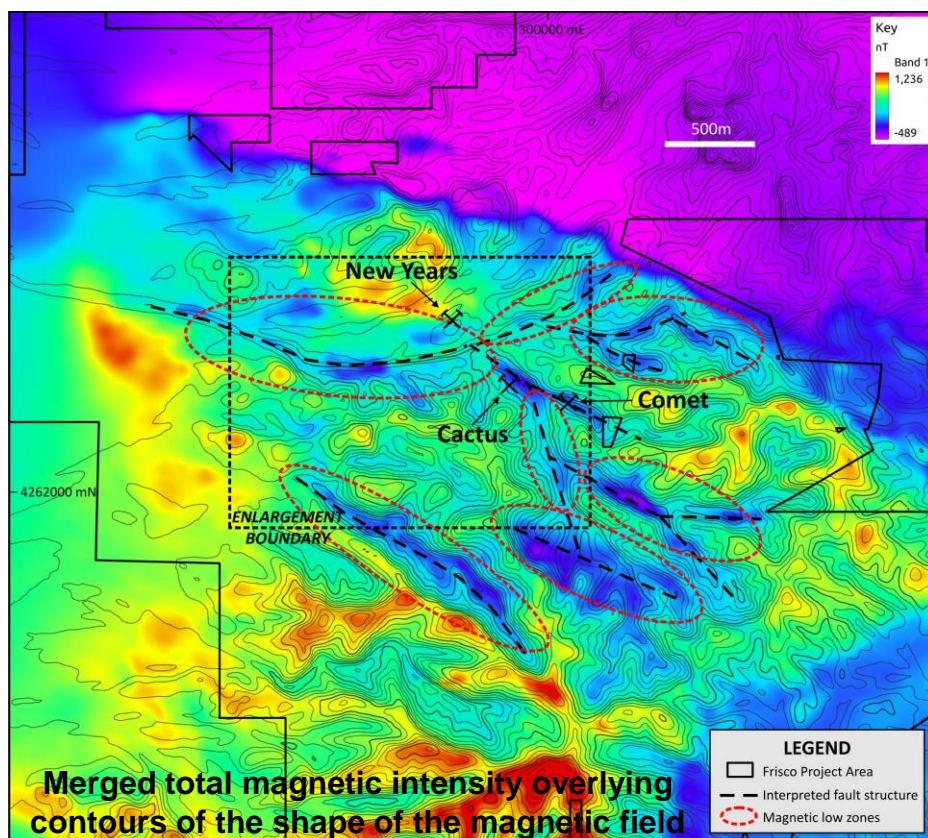




# New Data – Multiple Untested Magnetic Anomalies

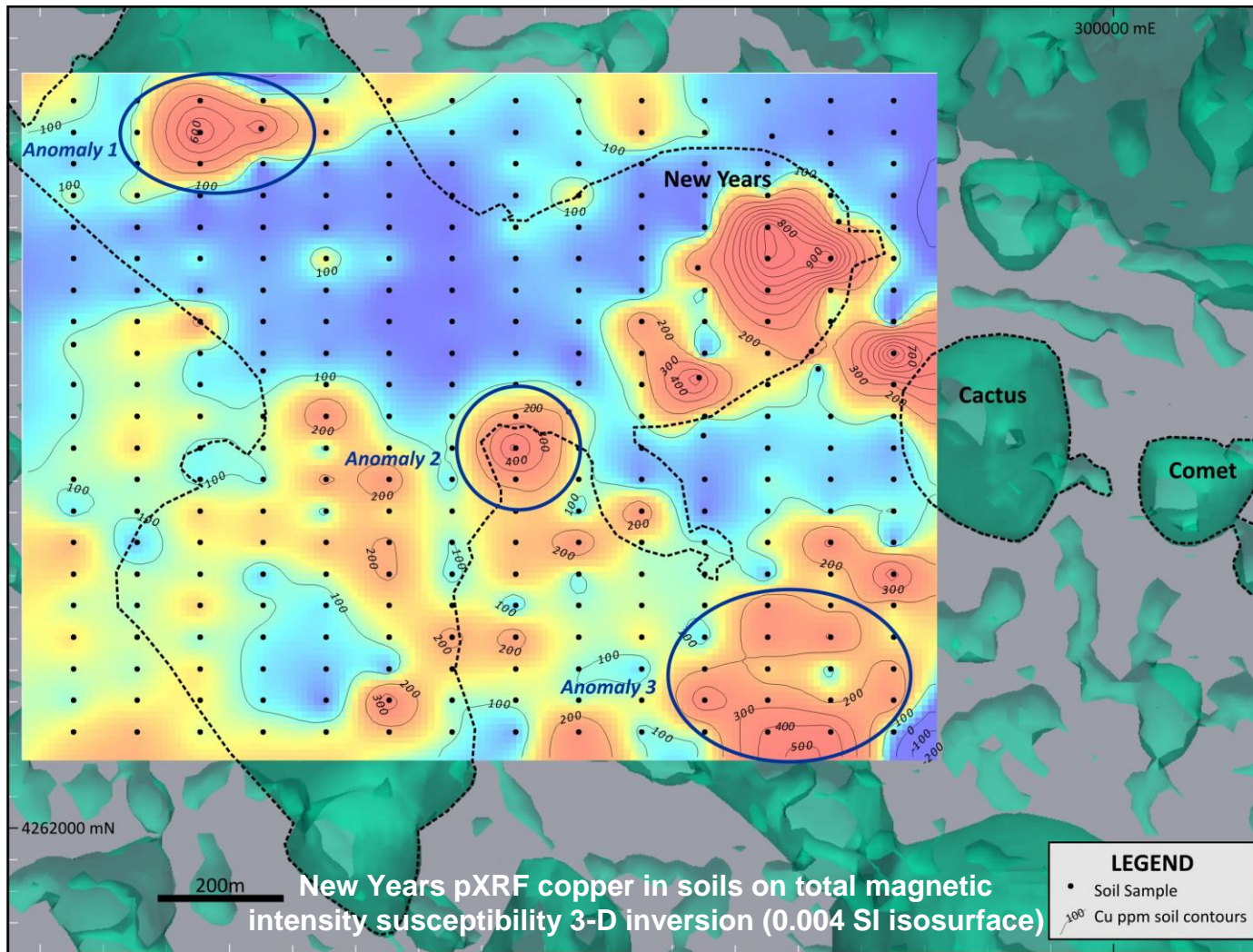
Alderan's 3-D inversion modelling of high quality drone magnetics survey highlights:

- Magnetic low zones define structures - Cactus and Comet sit within the NW-SE Cactus Canyon Fault structure
- Cactus and Comet have coincident discrete low anomalies in the 3D-magnetic inversion modelling
- Twelve new anomalies associated with structures including New Years on the NW-SE Cactus Canyon Fault trend





# Cactus: New Years Copper Rich Soils



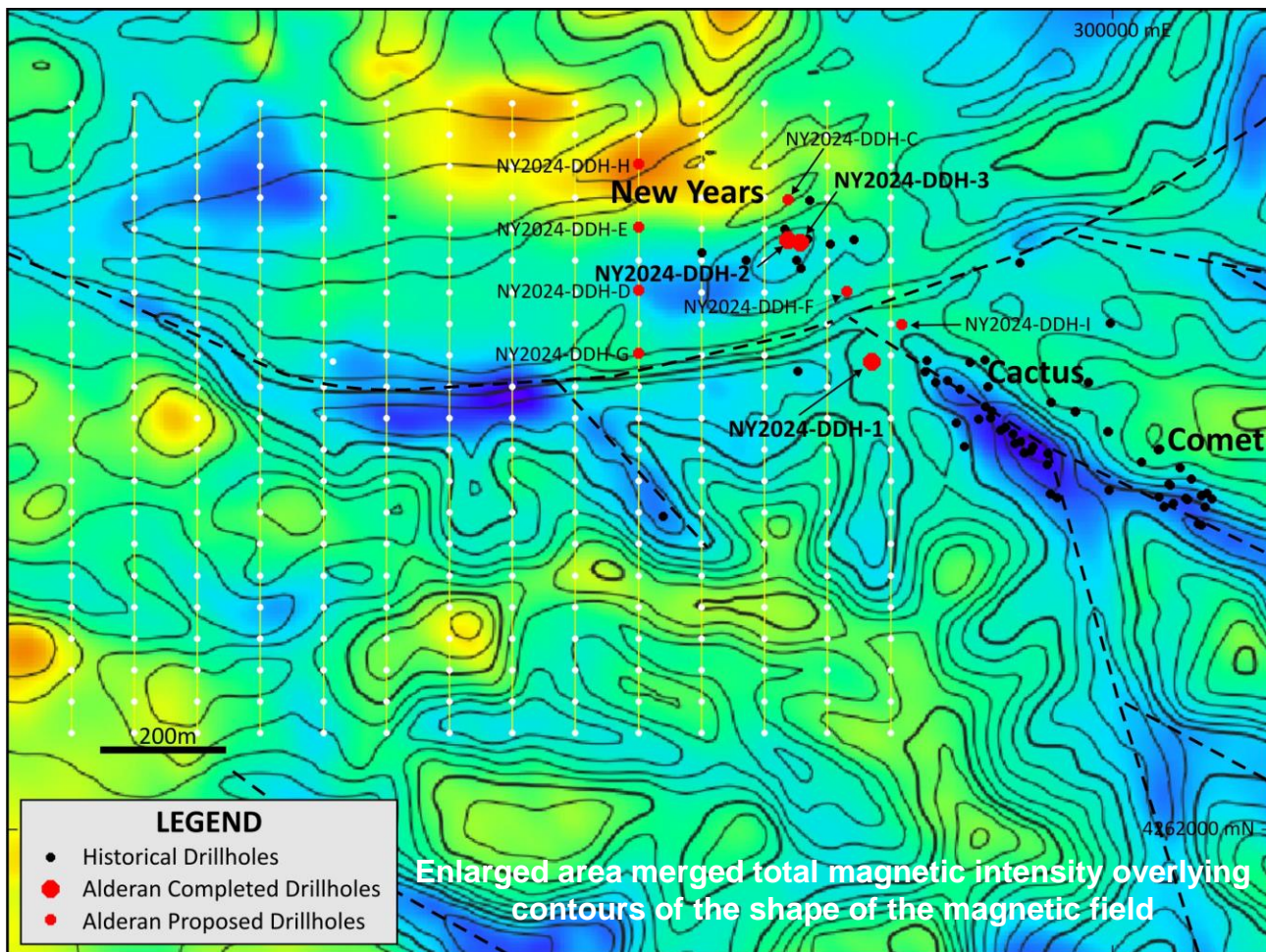
Soil sampling highlights New Years prospect plus three new copper anomalies

- 400m x 300m anomaly with pXRF grades up to 0.33% Cu over New Years
- New anomalies 1-3 have maximum grades 7-10 times the background grade of <60ppm Cu
- New anomalies coincide with magnetic anomalies

Soils will be an effective tool in prioritising magnetic anomaly targets



# Cactus: High Grade Copper in New Years Drilling



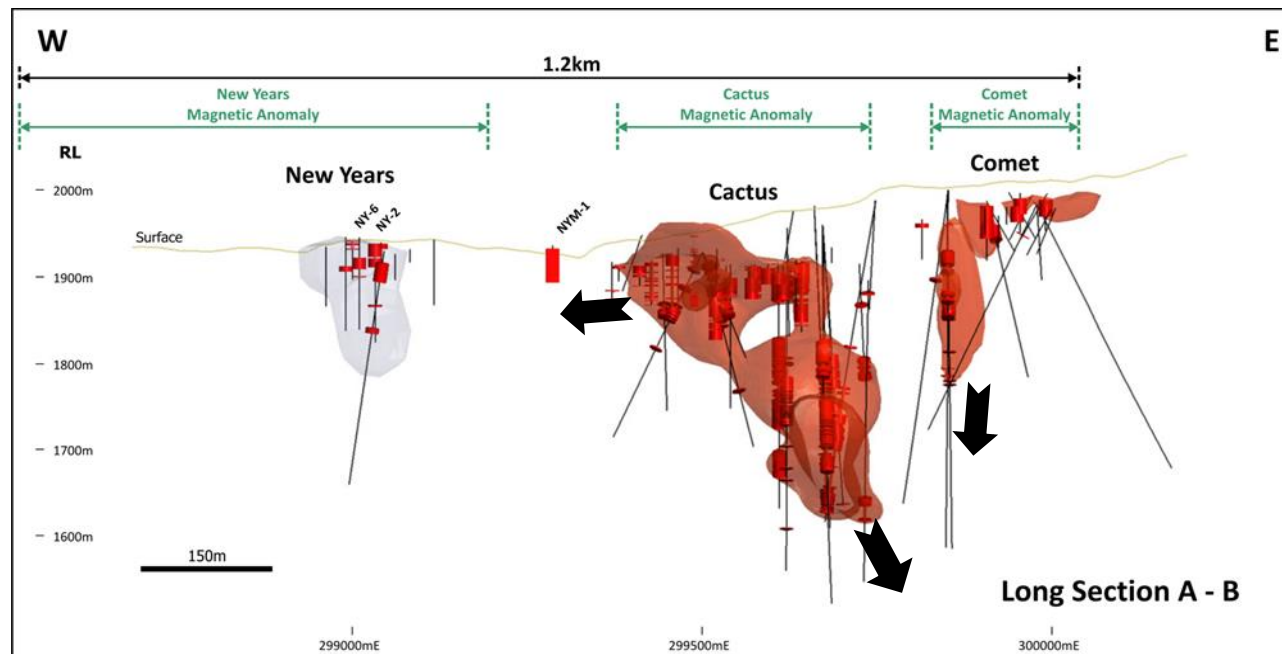
Initial 3-hole (319m) drilling programme at New Years to verify historical intersections completed in Sept 2024

- **NY2024-DDH2: 30m copper oxide intersection** from 10m down hole with averaged pXRF assays up to 23.2% Cu
- 2m copper sulphide intersection from 72m down hole with averaged pXRF assays up to 6.7% Cu
- **NY2024-DDH3: 25m copper oxide intersection** from surface with averaged pXRF assays up to 8.2% Cu
- **19m copper sulphide intersection** from 73m down hole with averaged pXRF assays up to 17.2% Cu

**Next Steps:** Lab analysis, detailed geological mapping, soil sampling over magnetic anomalies, EM geophysics and more drilling

# Cactus – Oxide & Primary Copper-Gold Potential

1. Comet, Cactus and New Years sit in the same NW trending fault zone
2. Deposits have coincident magnetic anomalies over +1.2km of strike length
3. High grade copper in historical drill hole intersections including at New Years with mineralisation from surface
4. New Years breccia rock float and soil anomalies to 4.5% and 0.33% copper respectively



4. New Years – unexplored since 1964 plus another 12 new untested Cactus and Comet ‘look-a-like’ magnetic anomalies identified
5. Alderan drilling at New Years intersects high grade oxide and primary copper mineralisation based on visuals and pXRF assays – lab assays to come



# Investment Highlights

## USA Copper

- **High grade copper** intersected by Alderan at New Years prospect - first drilling since 1964
- **Three additional untested copper soil anomalies** at New Years
- **Cactus and Comet copper-gold deposits** are open
- **Twelve untested geophysical targets** analogous to Cactus and Comet
- **Next Steps: District surface exploration & New Years Stage 2 drilling**

## Brazil Lithium

- **Stream and rock sampling** completed over seven lithium projects covering 472km<sup>2</sup> – Itambacuri, Carai & Itaipe lithium and rare earth anomalies
- **Projects located in ‘Lithium Valley’** district of Minas Gerais state and in Bahia state which have supportive governments
- **Right geological setting confirmed** - Projects at the margins of G4 granites with pegmatites, lithium indicators and garimpo mining
- **Next Steps: Salitre drilling & stream sample anomaly followup**



Copper in NY2024-DDH2 at New Years, Utah



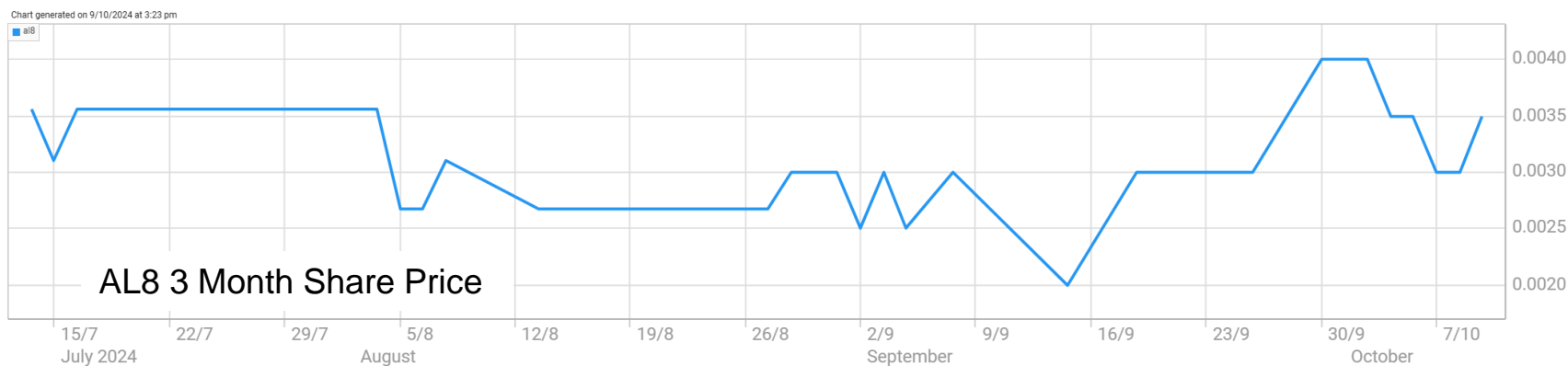
Beryl sample from Carai Li project, Brazil



# Corporate Structure

## SUMMARY

Share price (9 Oct 2024)	\$0.003	Shares held by Directors & Management	6.9%
Shares on issue (9 Oct 2024) <sup>1</sup>	1,571,248,936	Top 20 shareholders	58.6%
Market capitalisation (9 Oct 2022)	A\$4.7 million	Cash balance <sup>2</sup>	A\$119,404
Options	805,468,963	<sup>1</sup> Prior to placement of rights issue shortfall; see AL8 ASX announcement 1 October 2024 <sup>2</sup> At 30/6/2024; AL8 placement & rights issue announced on ASX on 15 August 2024	



Source: ASX

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New Years drill hole NY2024-DDH3 looking toward  
Cactus Mine