

LITHIUM EXPLORATION: A CRITICAL LINK TO THE U.S. BATTERY SUPPLY CHAIN

March, 2025



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Distinguishing Bradda from other lithium explorers

Tier One Political Location

Nevada and Arizona are low risk jurisdictions – **ranked #2 and #7 Globally** by the Fraser Institute Survey of Mining Companies 2024, **no risk of asset nationalization**

First-rate Infrastructure

Assets located in Nevada and Arizona, in close proximity to highways and transport links to major gigafactories (e.g. Tesla etc), bridging the developing US battery supply chain

Reduced Geological Risk

Diversified lithium portfolio containing all three types of lithium assets: pegmatites, clays and brines (oil and salar)

Uniquely Leveraged

Significant movement in lithium-brine space from majors Exxon, Equinor and Rio Tinto, firmly tipping the scale for Bradda's four brine assets

Focused on production

Striving to accelerate path to production through innovative initiatives including an AI-powered mineralogical / metallurgical scoping study at San Domingo to reach resource

Board & Management Committed

20% of shares held by Board and Management, belief in business model, committed to discovery, and poised to capture US lithium market

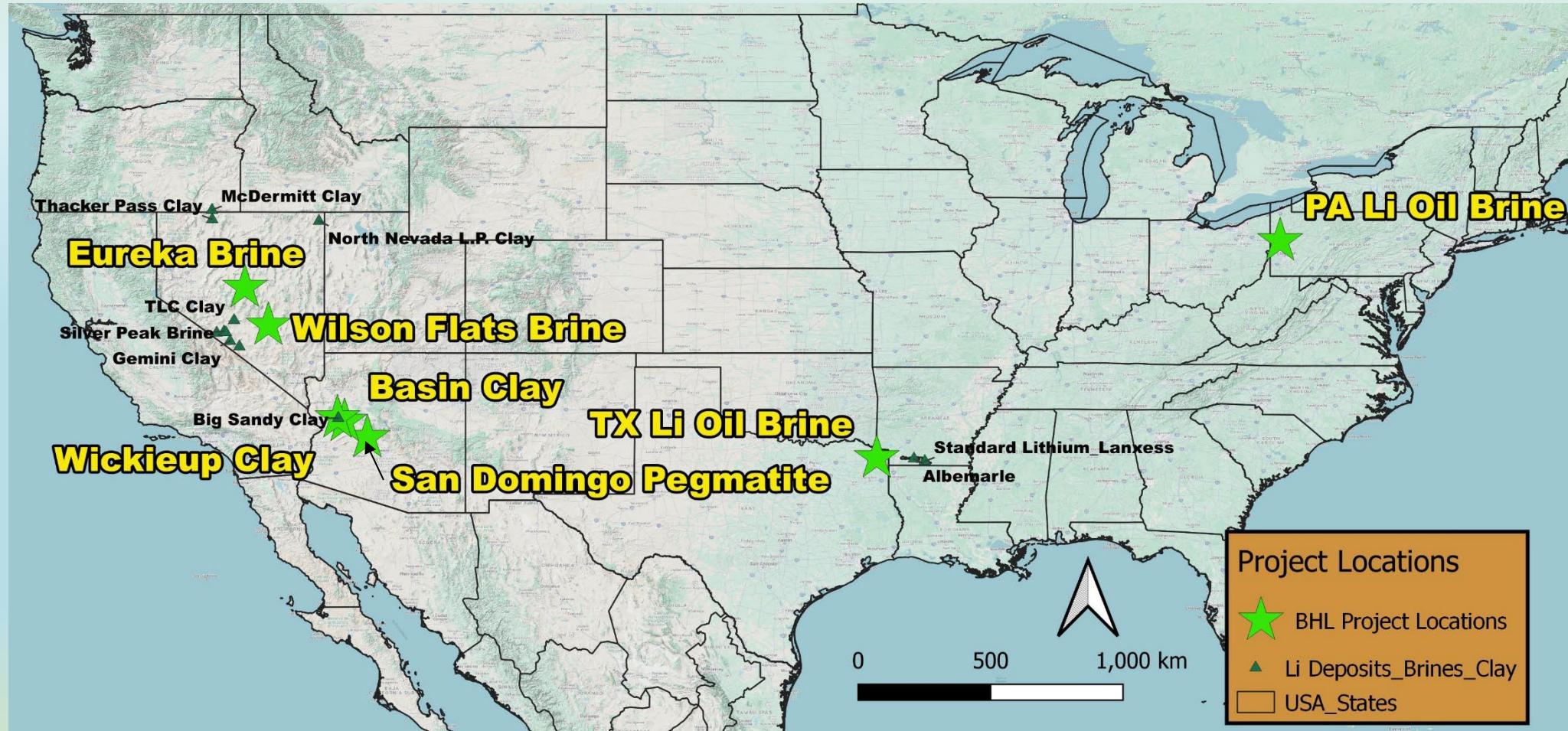
Right Time, Right Place, Right People

With significant supply deficits forecasted, Bradda and its experienced team, strongly supported by the Board, are poised to capture the rapidly evolving U.S. market

Developing US Lithium for US markets: BHL Assets

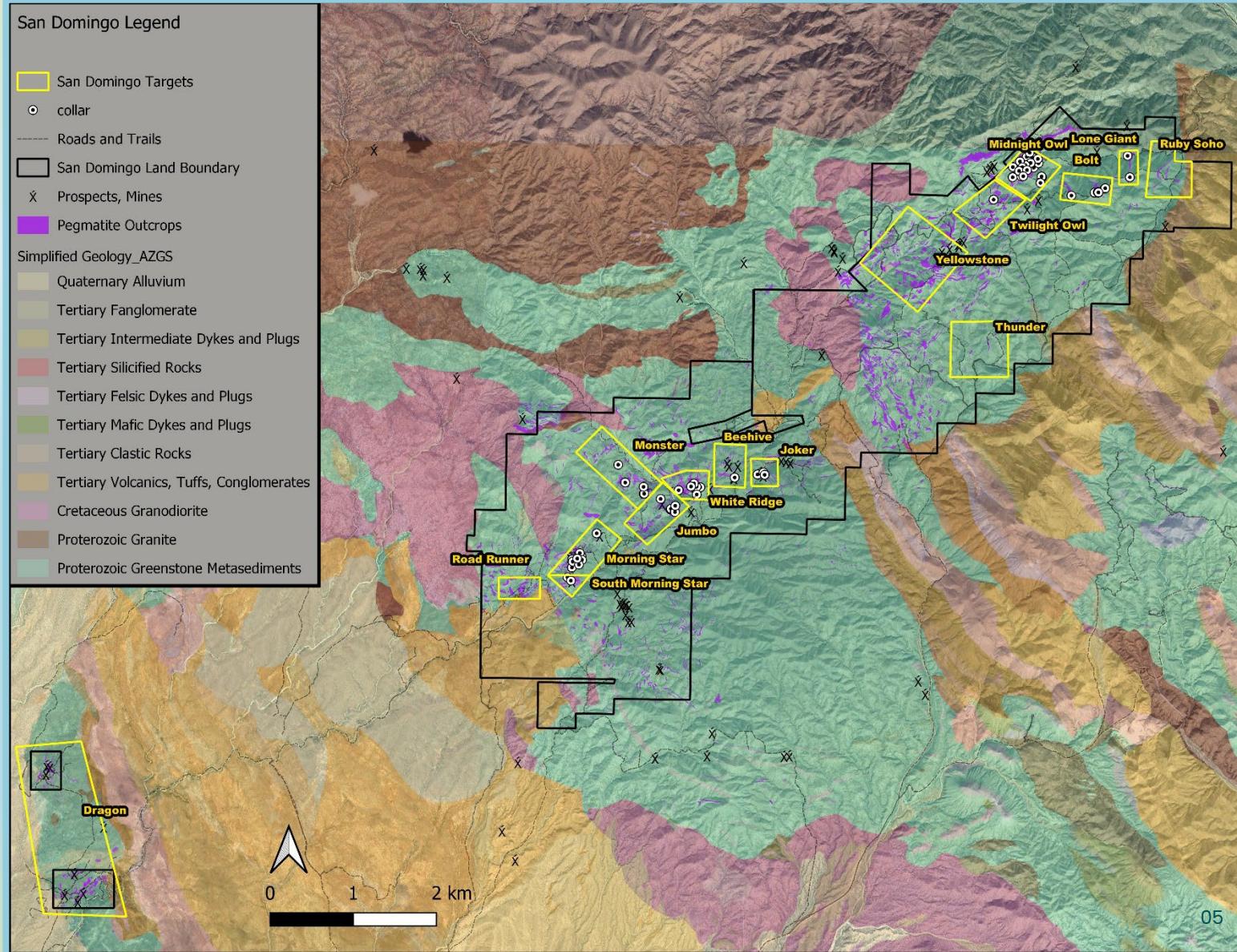
- San Domingo **Pegmatite**, AZ
- Basin & Wickieup **Clay**, AZ
- Wilson & Eureka **Brine**, NV
- Pennsylvania and Texas Lithium **Oil-Field Brines**

Seven projects, four states



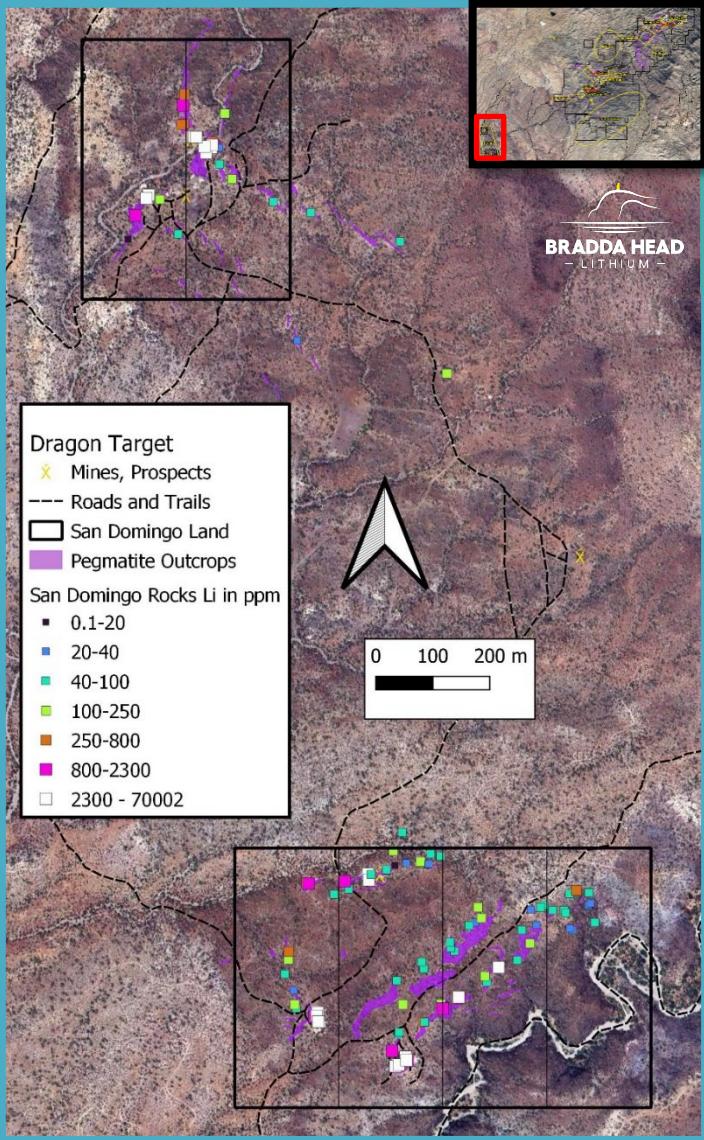
San Domingo – Overview

- **23.9km²** land position, 8 historic lithium mines 16 Target Areas
- **LCT signature, anomalous Cs, Ta, Sn, & Rb, Greenstone host rock**
- **107 holes and 13,092m, 11 targets tested**
- Shallow (<100m) Li-Intercepts with **32m @ 1.60% Li₂O** from 27m depth
- Channel Sampling include **5.0m @ 2.33% Li₂O** at White Ridge and **8.8m @ 0.97% Li₂O** at Dragon
- Metallurgical test on **Jumbo** target drill core indicate up to **6.0% Li₂O** concentrate with $\frac{1}{4}$ " crush by HLS
- Currently running a mineralogical sorting study on a high-grade spodumene composite using AI technology, results pending
- **No** environmental or social **roadblocks**, permitting with BLM and State of AZ
- **Reviewing fast-track permitting to small-scale quarry type production**

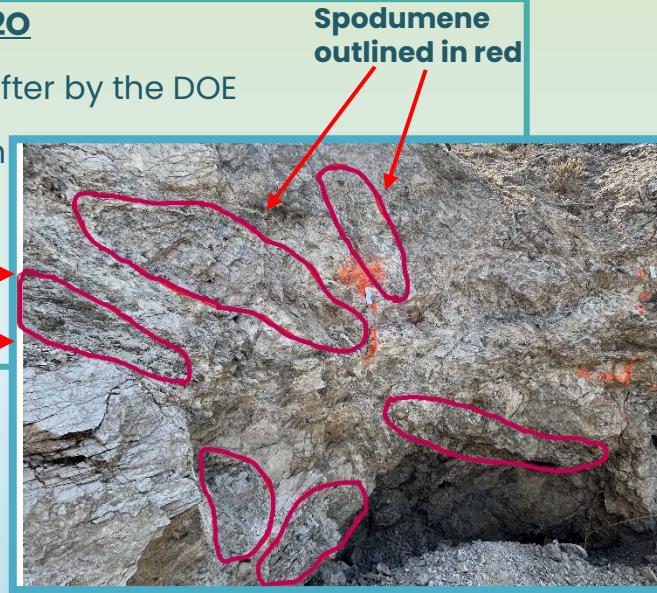
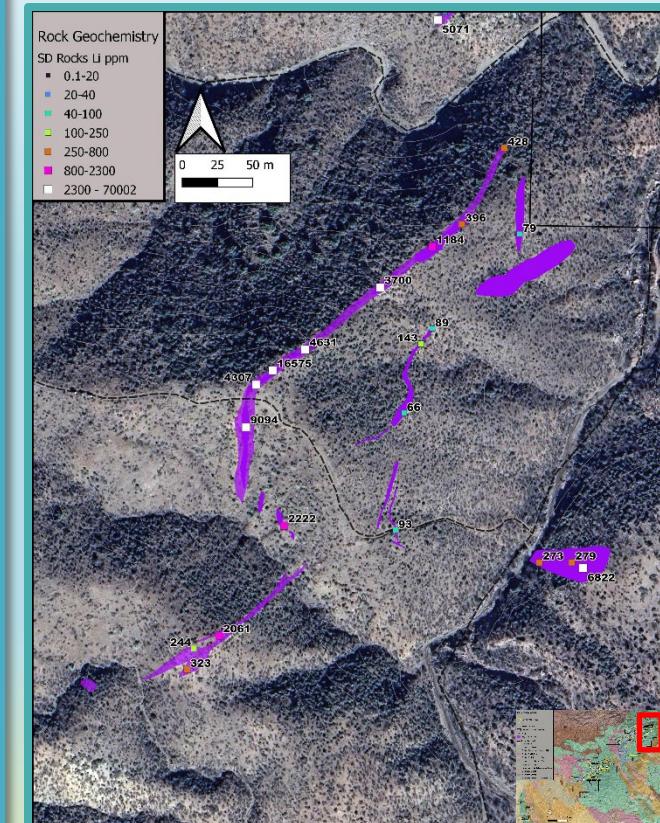


Dragon and Ruby Soho Targets Undrilled, High-Grade Spodumene

Dragon Target



- Highest grade** surface sample on project, **7.99% Li₂O**
- High Cesium (1,300ppm)**, a critical metal sought after by the DOE
- Large spodumene** crystals on surface, >1.0m length
- 600-meter strike length** of Li-bearing pegmatites
- Numerous **historic mines** and prospects
- Channel sample results: **8.80m @ 0.97% Li₂O**

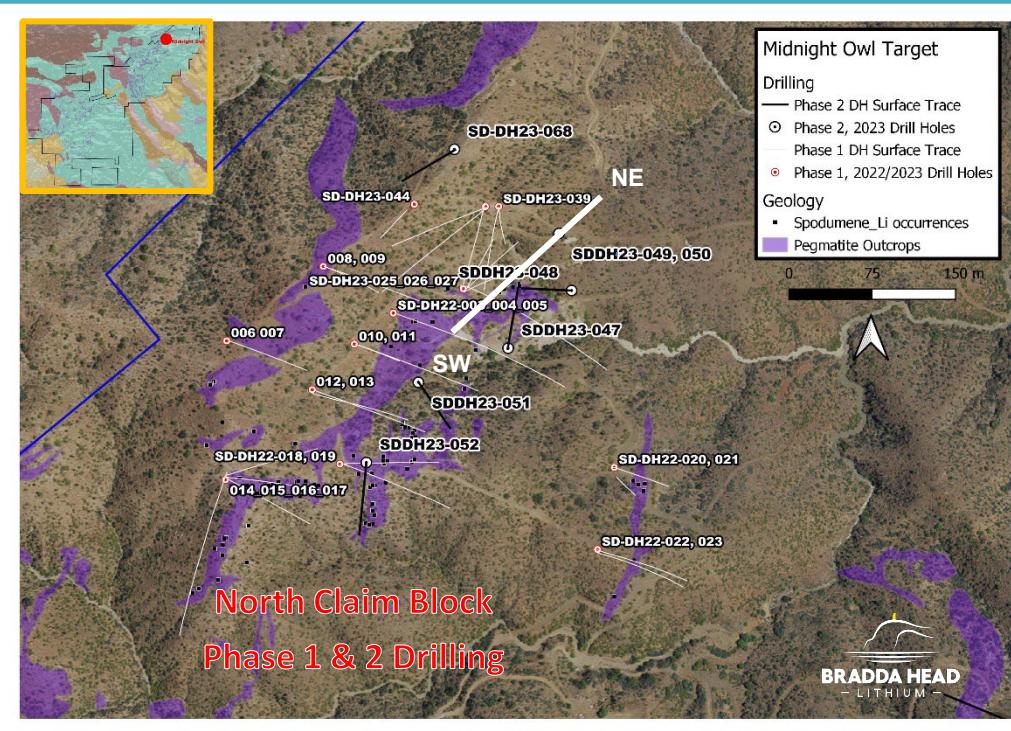


Ruby Soho Target

- High grade** surface sample **3.57% Li₂O**
- 500-meter strike length** of Li-bearing pegmatites
- Undrilled
- Excellent access
- Spod photo --->

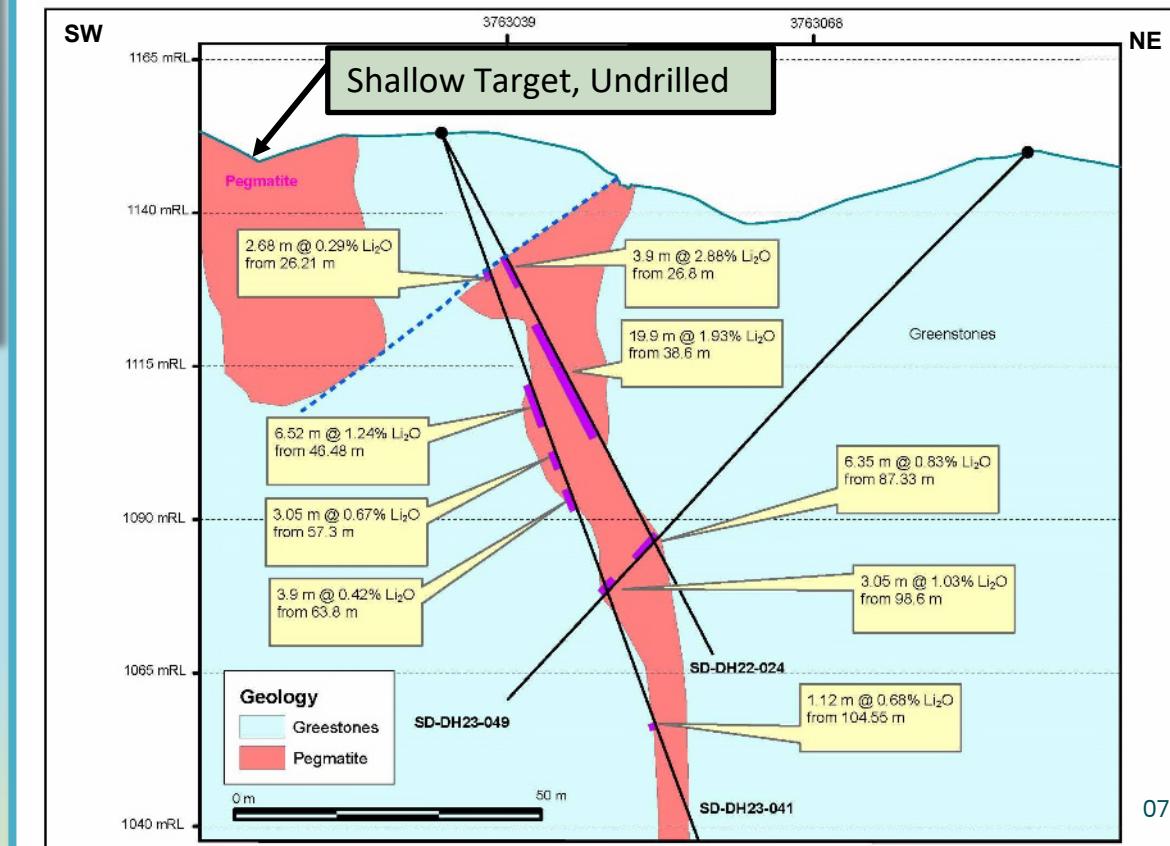


Midnight Owl — Open Mineralization at Depth, Opportunities Remain



Highlights:

- 31.85m @ 1.60% Li₂O in SD-DH22-024
- 6.52m @ 1.24% Li₂O in SD-DH22-041
- 4.27m @ 1.86% Li₂O in SD-DH22-005
- 2.74m @ 2.12% Li₂O in SD-DH22-042
- 6.35m @ 0.83% Li₂O in SD-DH23-049
- 3.05m @ 1.03% Li₂O in SD-DH23-049



- New geologic model at Midnight Owl reveals shallow and untested spodumene bearing pegmatite (slide to right)
- Drill-target for H1 of 2025, holes <50m depth

LCT Signature, Critical Metals:

- 31.85m @ 355ppm Cs, 75 ppm Sn, 191 ppm Ta₂O₅, 0.11% BeO in SD-DH22-024 w/ 7.06m @ 90 ppm Sn, 158 ppm Ta₂O₅, and 0.27% BeO

San Domingo: Next Steps...

Received drilling permits with BLM at Dragon and Midnight Owl / Ruby Soho

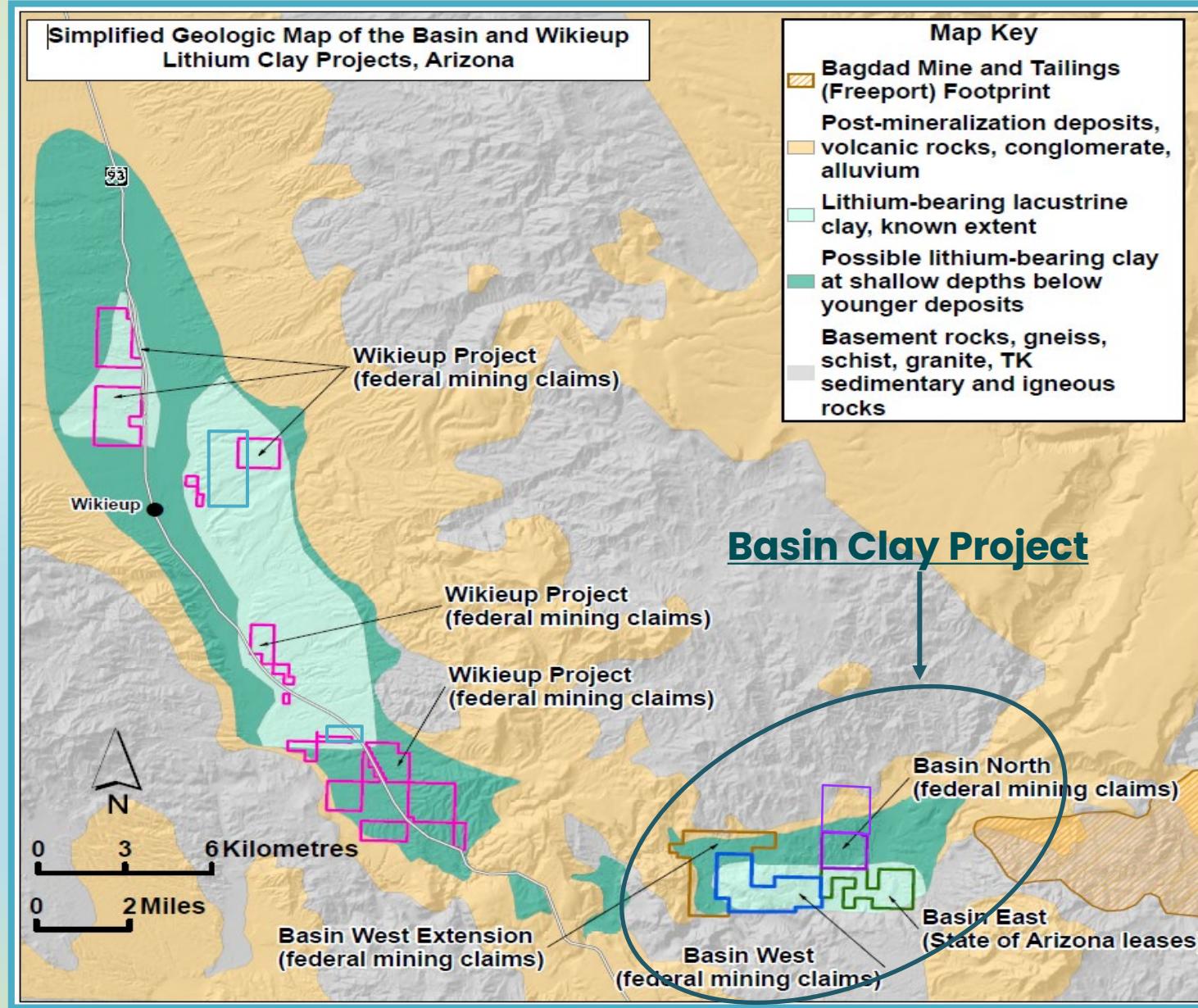
Transform Dragon, Midnight Owl, and Ruby Soho from exploration targets to **resource definition targets by end of H1 2025 drill program**

Follow-up positive drill results with **NI43-101 technical report**, predicting multiple resources defined

AI-powered mineralogical sorting study pending, interpretation for advance ore sorting pending, a process that can **significantly reduce CAPEX and OPEX costs**

Prospectivity for positive outcome and path to production supported by:

- **Excellent access**, no known environmental or social impacts, strong ESG governance
- Ease of drill hole permitting, BLM and State of Arizona significant allies
- Excellent metallurgical results from Phase I study in 2023 and new study could pave pathway to production



- Basin Clay MRE **new 2.8MT** LCE MRE at Basin in 2024
- LRC Royalty payment of US \$3.0M received
- Exploration plan of operation (EPO) permit with BLM approved to expand drilling footprint in Basin West, EA anticipated end of 2025
- Extensive land package at 19.7km²

Basin Project 2.81MT LCE Resource

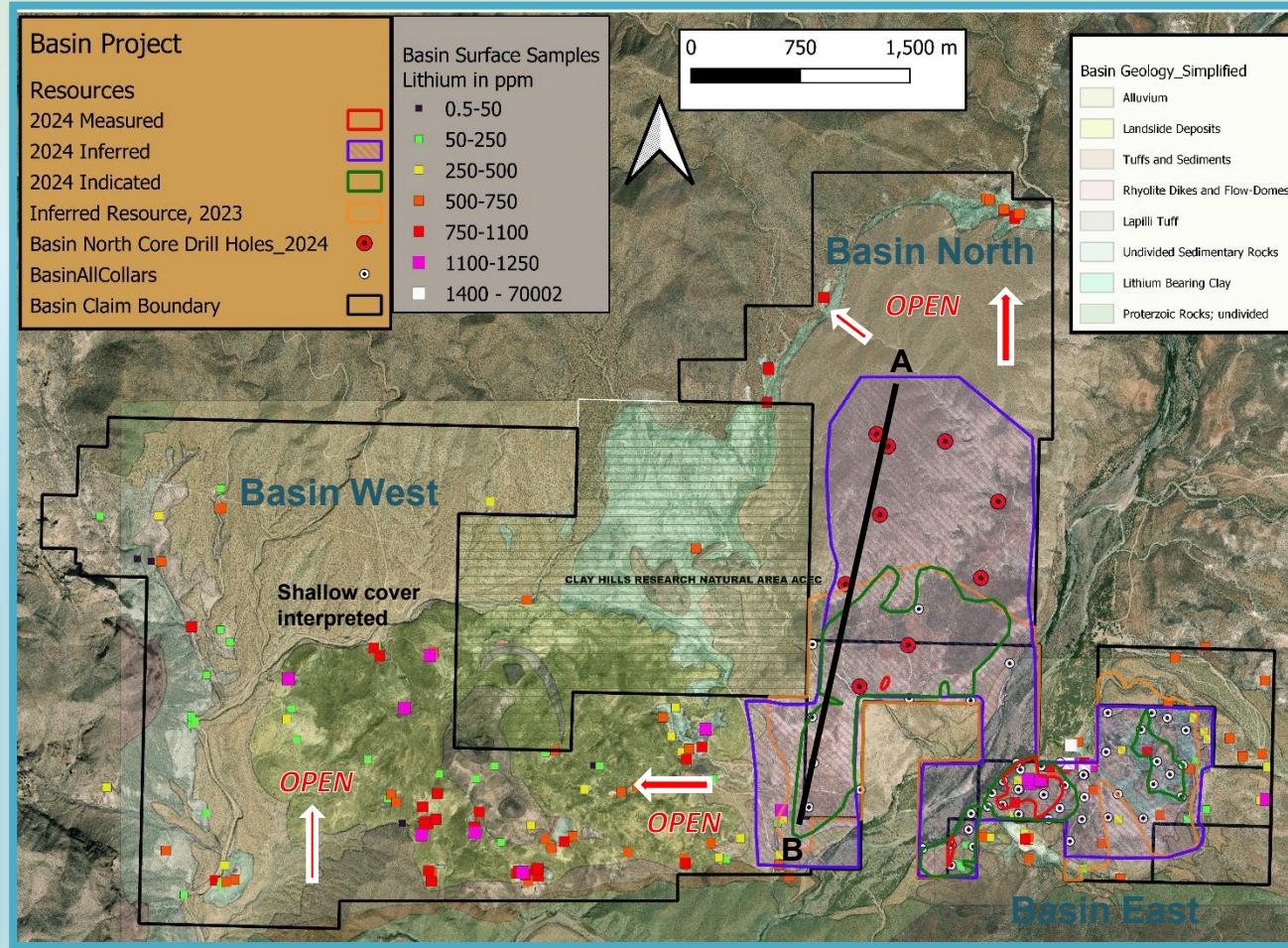
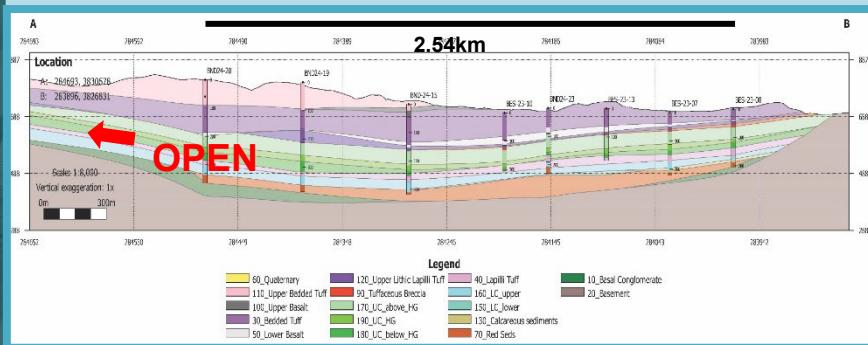
Basin: 2024 Drilling Completed, New MRE of 2.81MT LCE

Basin North Drilling completed May: 8 core holes, new MRE calculated nearly **tripling size from 1.09 to 2.81 LCE @ 810ppm Li**

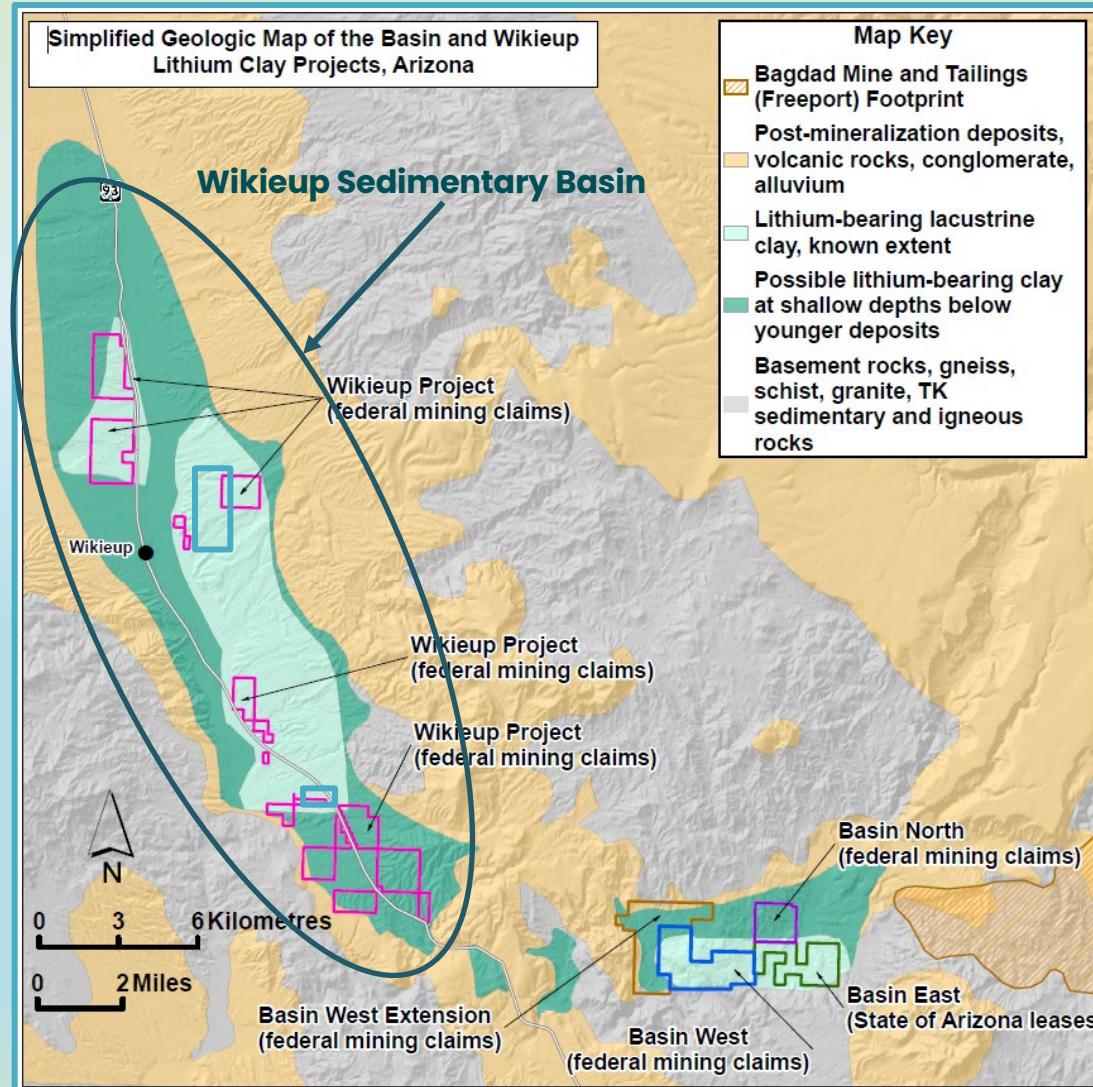
Milestone of >2.5MT LCE reached, triggered **\$3.0M payment to BHL**

Will initiate new metallurgical study, geared towards utilizing multi-stage leaching process, whilst reducing acid consumption by 40% and lowering CAPEX costs

EPO Permit approved for Basin West, EA will be written as part of NEPA process for final approval



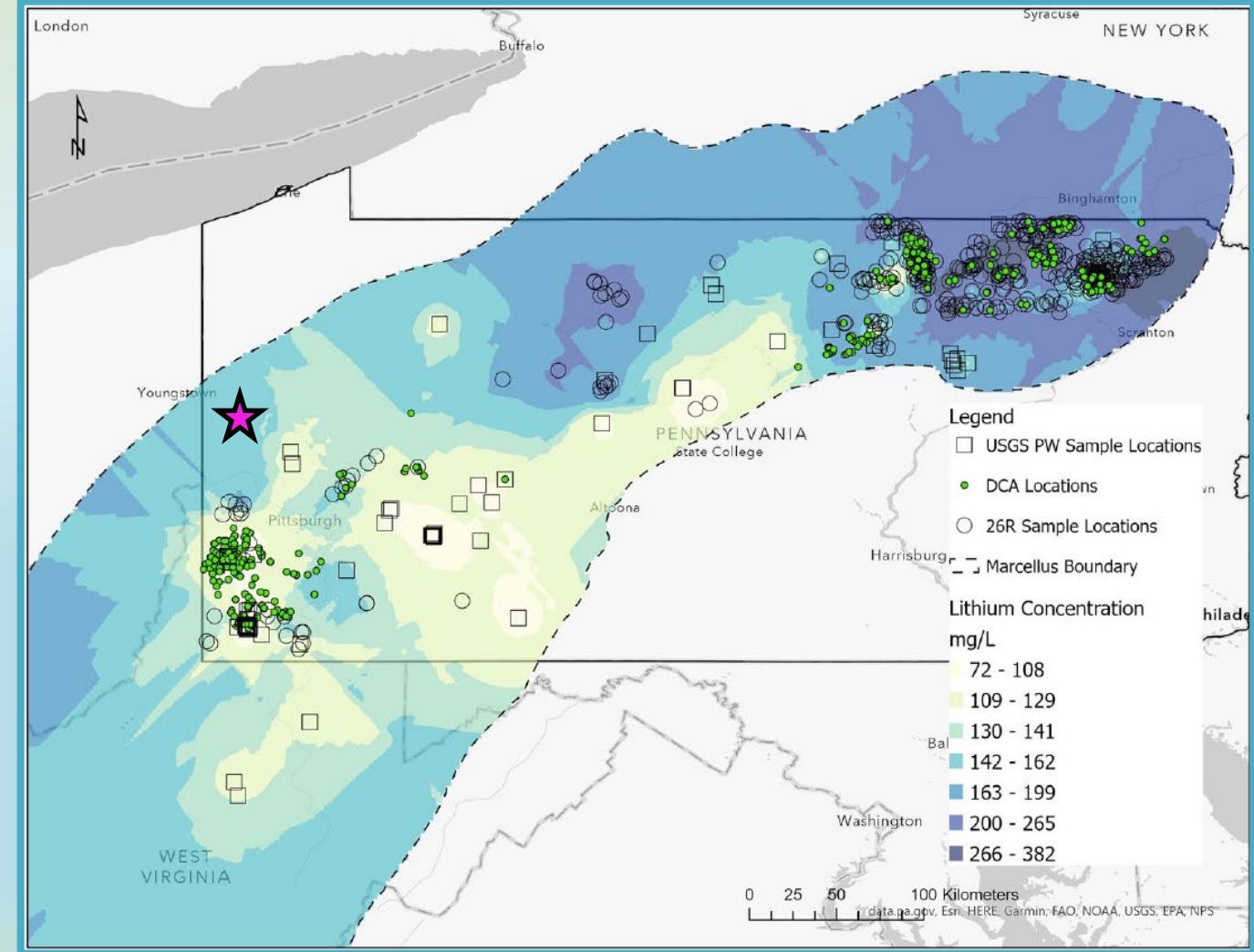
Lithium in Clay Overview of Wikieup – Adjacent to Basin



- Extensive land package covering 24km²
- Sedimentary assets across Wickieup land package have shared geology, lacustrine environment with district-scale potential for significant Li
- 2024/25 targeting work has included surface mapping, geochemical sampling, tectonic modelling
- Completed land exchange, added 5.27 km² of unpatented lode claims, less than 1.0km from Arizona Lithium's Big Sandy clay deposit

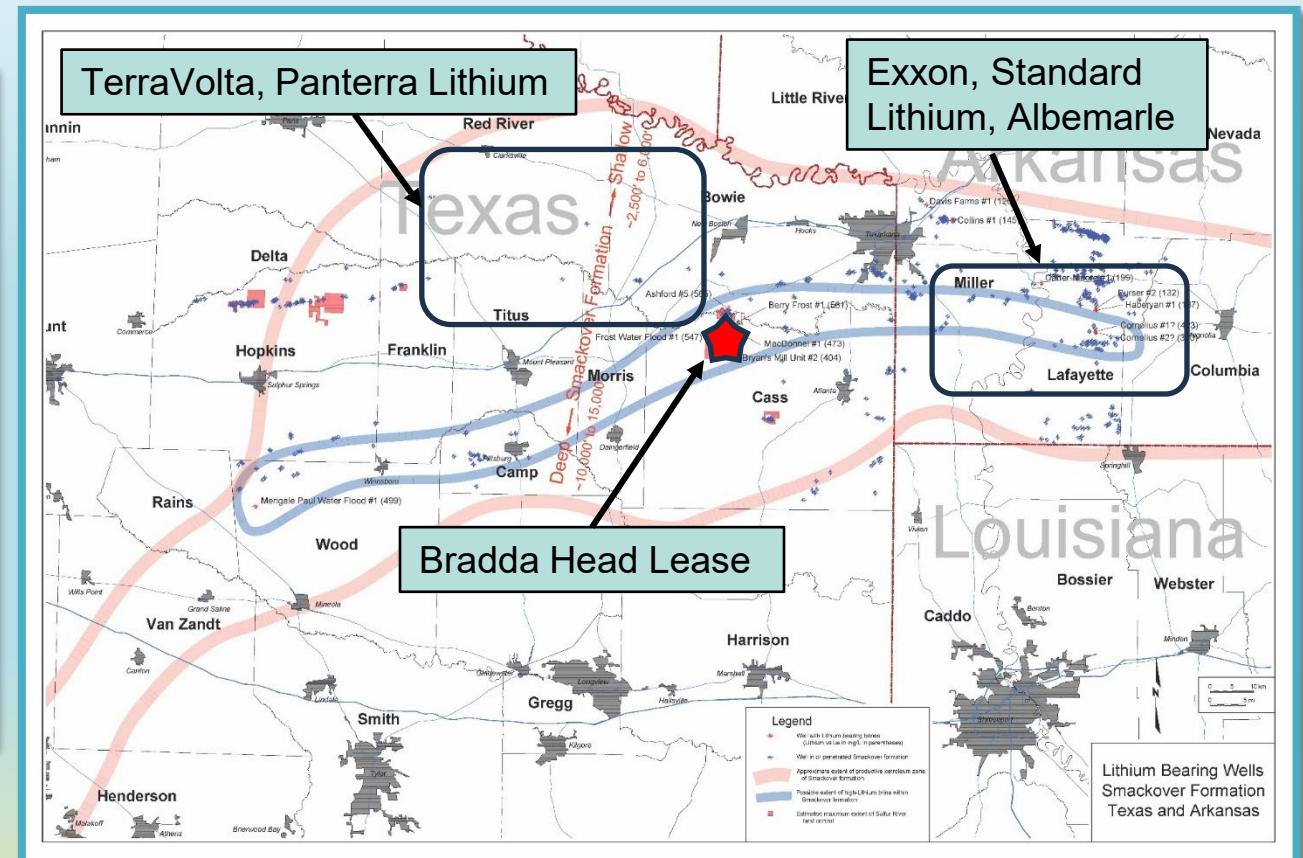
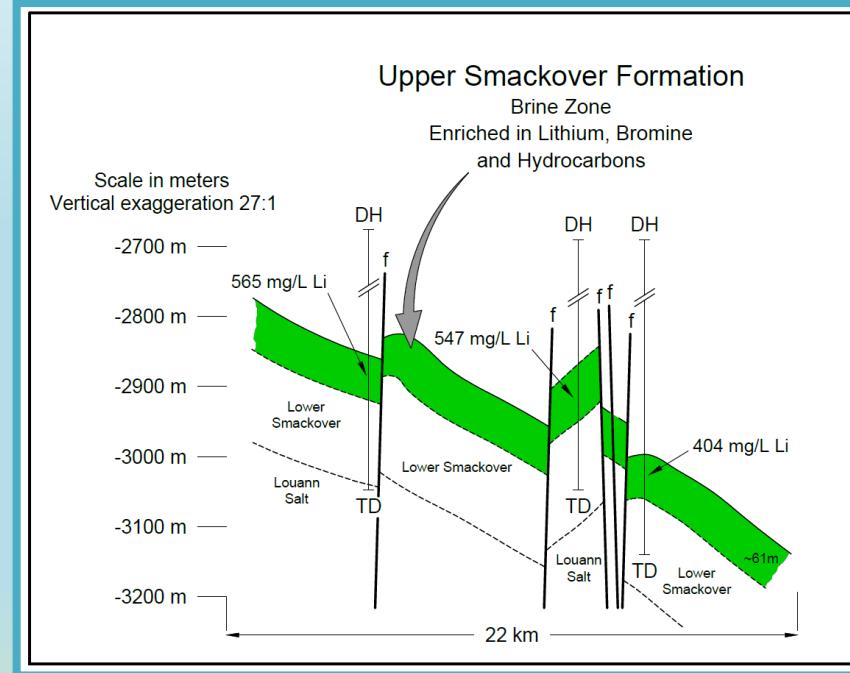
Lithium Oil Brine - PA, USA...Yes, PENNSYLVANIA!

- PA identified as having massive lithium reservoir across state - BHL has been working there for 6 years, consolidating mineral leases
- Company has 589 acres leased, consolidated over 5 targets
- Former oil wells sampled by USGS, **490 and 489 mg/l lithium** adjacent or very proximal to leased properties, nearly double of that found in Marcellus Shale
- Oil brine reservoir in Oriskany Fm @ 1,600m (5,250 ft), below the Marcellus gas bearing shale and fracking horizon
- Elevated levels of lithium (150 to 382 mg/L) found in residual waters from fracking areas within natural gas bearing **Marcellus Shale**



Lithium Oil Brine Asset in Smackover Fm—Texas / Arkansas, USA

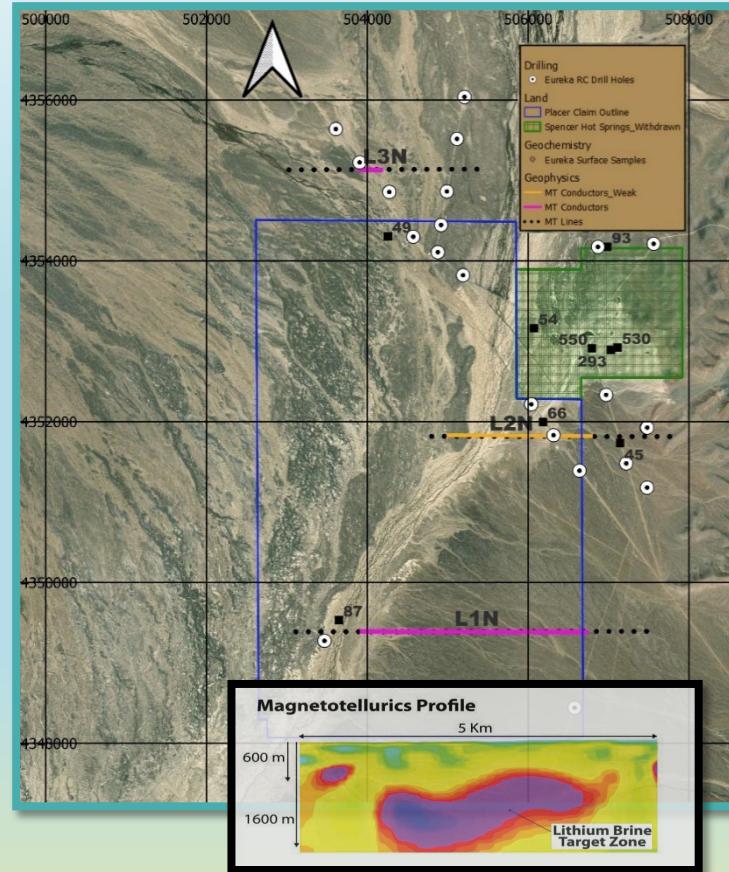
- Bradda Head's Asset located in East Texas, 40 acres under lease for exploration, at center of cross section
- Historic drill hole adjacent to lease measured **561 mg/litre** Li by USGS
- Standard Lithium recently formed Joint Venture with Equinor to advance their SWA and ETX lithium in oil brine assets
- Exxon and Albemarle properties 80km to east in Arkansas, covering similar lithium grades in brines
- USGS recently identified upwards of 19 MT of LCE potential within the Smackover, highlighting pedigree of lithium bearing oil brines in SW Arkansas and East Texas



Bradda Head Lithium Brine Assets, Nevada

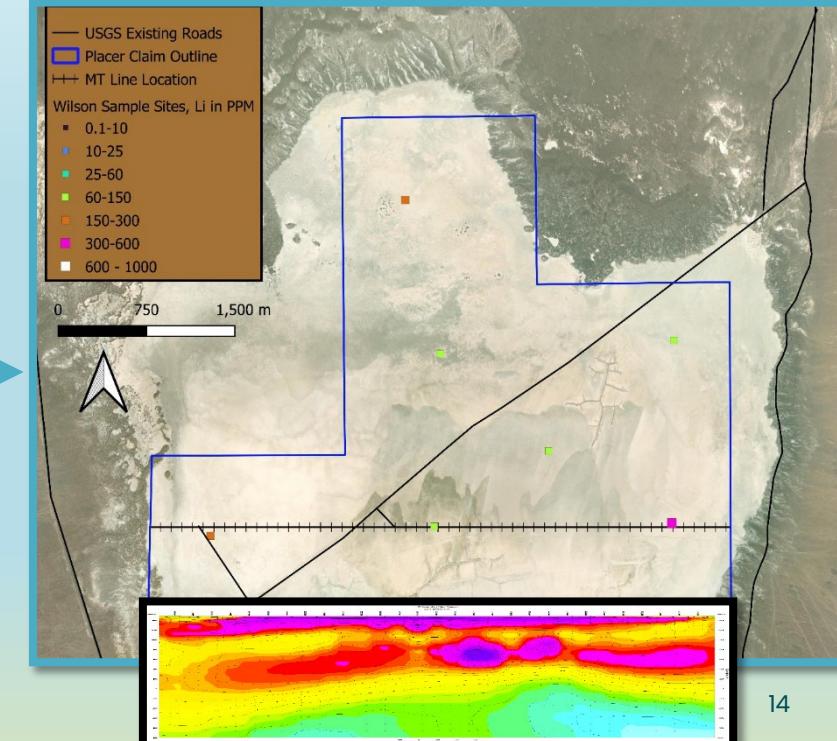
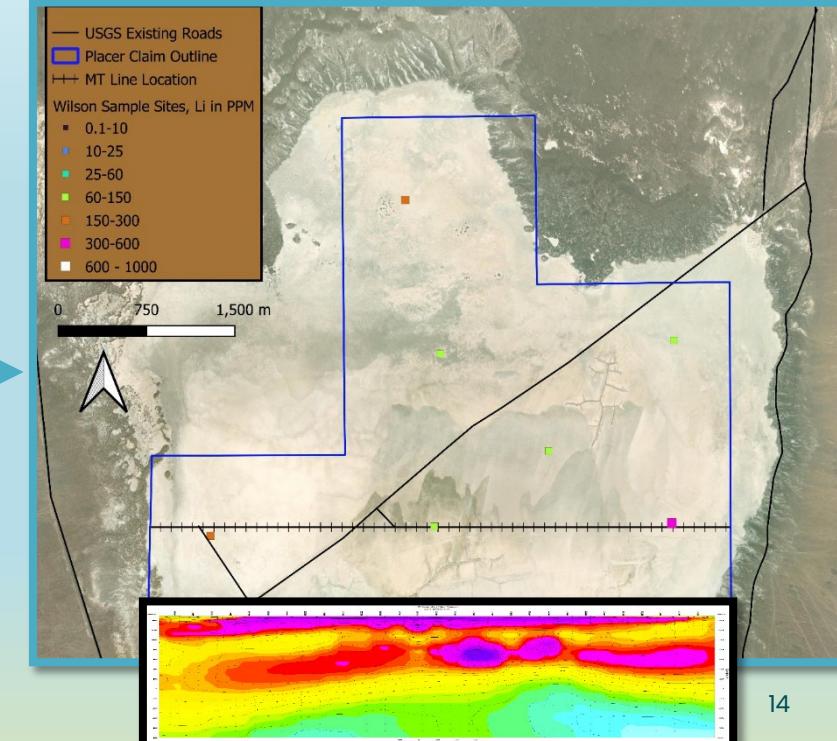
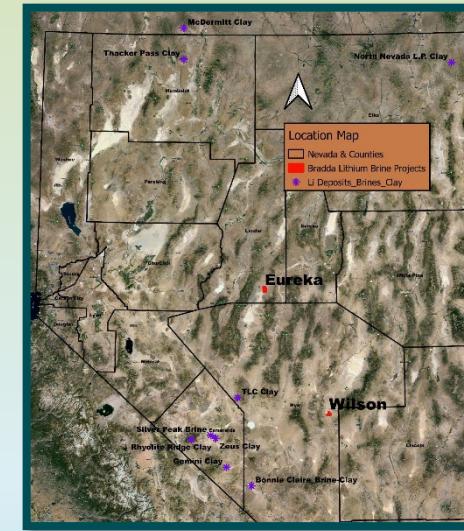
Prospective Brine Projects

- Located in Nevada, home to the largest lithium brine mine in the USA: Silver Peak
- Best jurisdiction in the USA for mining and exploration
- Excellent infrastructure, road accessible
- No environmental or socio road blocks
- Positive MT geophysics over both targets, substantial conductive anomalies discovered

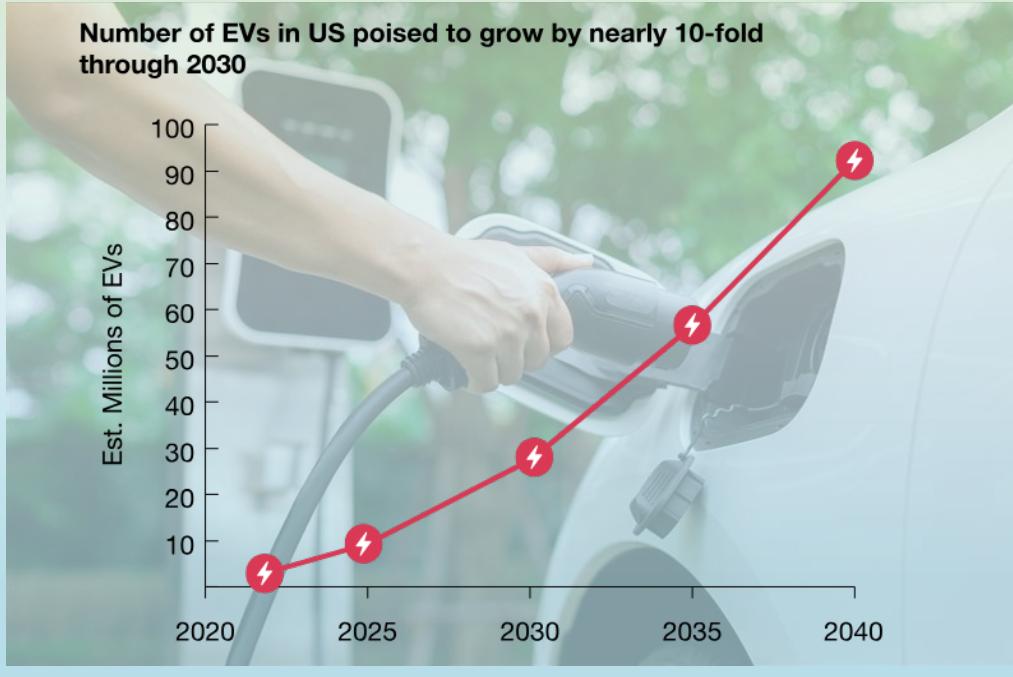


Eureka (left)

- MT geophysics discovered large conductor at 700–900m depth, 6km strike, untested by drilling
- RC drilling conducted on shallow geophysical conductors, surface soil/rock Li anomalies, and proximal to hot spring, values of 550ppm Li



Developing US Lithium for US Markets



Bradda Head assets:
strategically positioned
to benefit from market
opportunity in the U.S.

Source: Market data from PwC [[US electric vehicle charging market growth: PwC](#)]

Fasting growing EV market in the West

- The number of EVs in the US is estimated to hit 27 million by 2030 and 92 million by 2040

Positioned to capitalise on Trumps 'America First' Directive

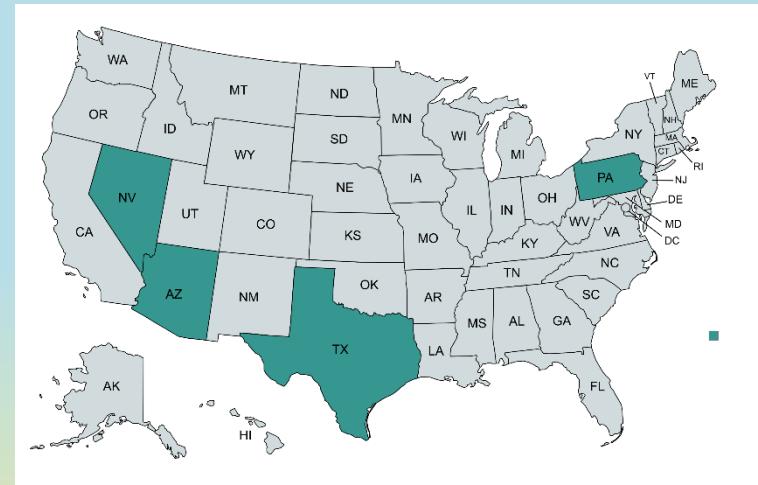
- Fast-tracking mine permits, pro-development, mining, on-shoring approach

Capturing the carbon-conscious market

- Targeting lithium end-users significantly reduces environmental footprint, satisfying carbon friendly criteria of EV makers

Moving to 'made in America'

- Major American corporations looking to develop an entirely U.S. domiciled supply chain and battery storage is growing fast
- Growing interest in geographically concentrated supply chain amidst threat of tariff and trade wars



Strategic Positioning in the USA for Lithium End-Users

Southwest USA Offers:

- Favourable location with respect to **power, rail and road transport**
- Energy **infrastructure easily accessible** and in place
- **Multiple lithium end-users located in Western states**, most notably the Tesla Gigafactory

Lithium Deposit Pedigree:

- 1 **Silver Peak, Albemarle** (Mkt Cap US\$9.6bn), brine, producing
- 2 **Rhyolite Ridge, Ioneer** (Mkt Cap US\$247m), sedimentary, mine permit granted, government debt funding \$996m, offtake agreements with Ford, Toyota-Panasonic
- 3 **TLC, American Lithium** (Mkt Cap US\$152m), sedimentary
- 4 **Thacker Pass, Lithium Americas** (Mkt Cap US\$917m), sedimentary, under construction, GM JV & offtake agreement and joint venture \$430M, \$2.3B DOE loan



Bradda Head LTD Assets



Brine assets



Sedimentary assets



Pegmatite asset

Low C Footprint By Sourcing Li in the USA for the USA Battery Market

-  **San Domingo** pegmatite asset: 13,092m drilled, dozens of high grade Li₂O intercepts, follow-up program permitting underway with 2025—H1 drilling program envisioned, 43-101 to follow alongside Mineral/Met Scoping Study, to move meaningfully towards production.
-  Company treasury strength through US\$3.0M royalty payment in August, 2024 received from LRC following resource expansion to **2.81 MT LCE at Basin**
-  Lithium **brine** projects in Pennsylvania, Texas, and Nevada offer excellent opportunities for growth, buoyed by Exxon, Equinor, and Rio Tinto entering brine market across the western hemisphere
-  BHL has ongoing low carbon footprint approach for the US domestic market by developing lithium resources within the US while pursuing strong ESG focus, plus new water conservation initiatives focused on drill methods and drill site design
-  Arizona is a supportive mining jurisdiction, the Company highlights environmental stewardship and community outreach, translates into immediate impacts at San Domingo and Basin; strong support from local and state government
-  Experienced management with proven track-record of returning value to shareholders

Directors and Executive Team



Ian Stalker
Executive
Chairman



Denham Eke
Finance
Director



Jim Mellon
Non-Executive
Director



Alex Borrelli
Independent
NED



**Euan
Jenkins**
Independent
NED



Piotr Shabak
CFO

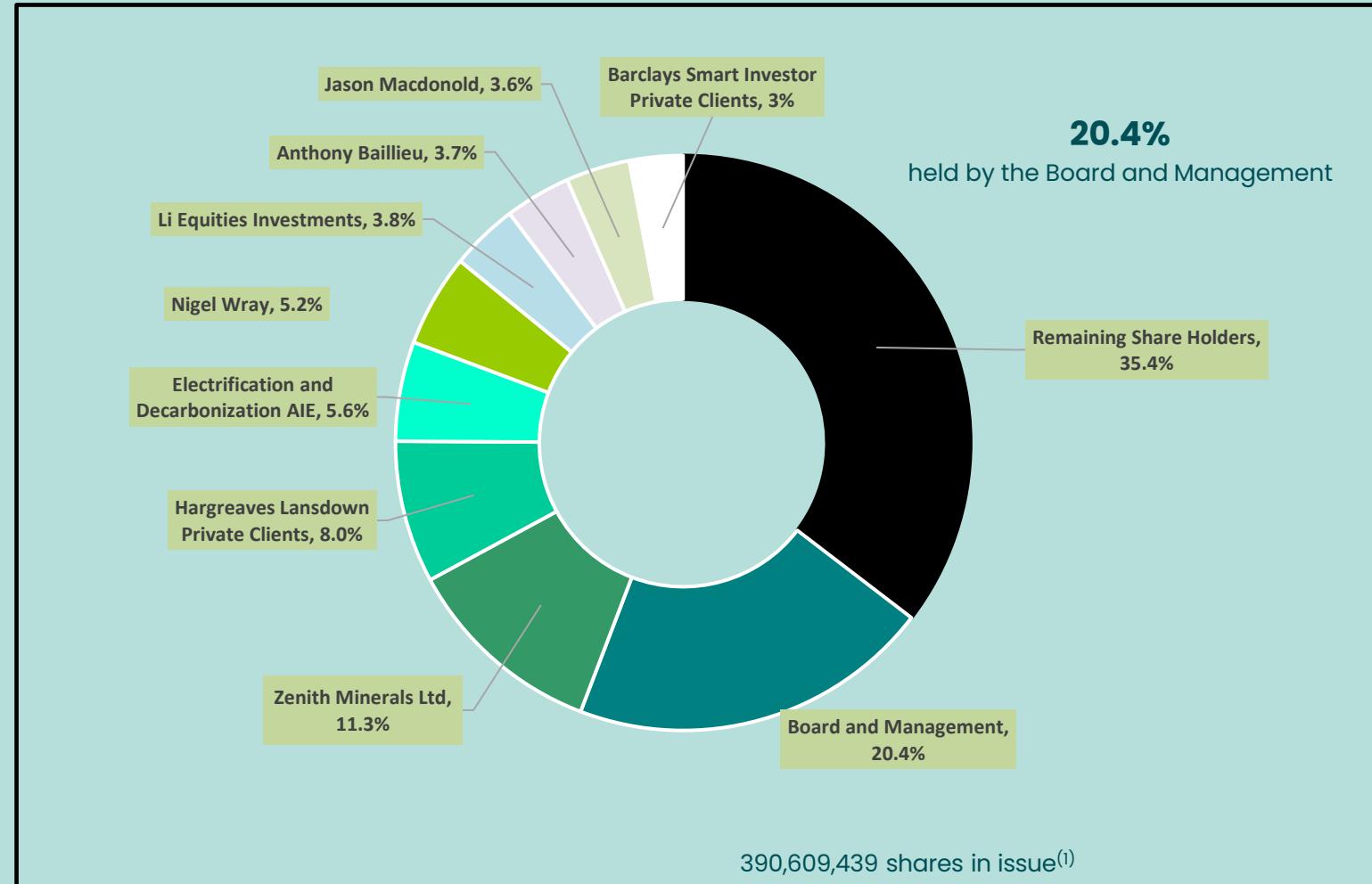


Joey Wilkins
COO

Plus a strong but nimble operational team on the ground in the USA, driving project growth

Bradda Head – Capital Structure

Capital Structure



Note: (1) Undiluted basis. On a FD basis, total is 510,178,796 as of 29 February 2024.

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