

# CRITICAL MINERALS FOR THE GREEN ENERGY FUTURE

**MAY 2023**

ASX : **L1M**  
[LIGHTNINGMINERALS.COM.AU](https://lightningminerals.com.au)

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The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

This announcement has been approved for release by the Board of Directors.

# WHY LIGHTNING?

Exposure to the high growth critical minerals thematic through project exploration, discovery and development



## MACRO

Underinvestment in the critical minerals sector has led to low supply, leaving us vulnerable to supply chain instability and future high demand



## THE OPPORTUNITY

Policy-driven electrification of vehicles putting pressure on critical minerals supply chain



## EXECUTION

Environmentally sustainable supply of critical minerals in first-class mining jurisdictions that prioritise responsible mining practices

# INVESTMENT HIGHLIGHTS

Highly motivated and proven team with a history of successful project execution in critical minerals sector



## STRONG ASSET BASE

Underexplored assets in emerging Lithium province within close proximity to major resource projects. Multiple other critical minerals and commodity opportunities.



## EXPERIENCED TEAM

Multi-disciplined team with proven track record of company growth and project execution. Experience in mining, geology, corporate, listed companies, transactions and commercial.



## CRITICAL MINERALS

Megatrend set to expand and accelerate driven by policy and supply issues. Key critical minerals exposure across tenements with minimal historical exploration and multiple exploration opportunities.



## GROWTH STRATEGY

Clear strategy for growth with multiple targets and work programs. Initial works post IPO have identified multiple Lithium and critical minerals anomalies.

# CORPORATE SNAPSHOT

**\$0.18**

Share price

**\$8.72M**

Market Cap

**\$5.2M**

Cash

**48.5M**

Shares on Issue

**10.53M**

Unlisted Options

**Options Summary**

- 26.7 Million listed options (exercisable at \$0.25 each expiring 13/03/2028)
- 5.20 Million options (exercisable at \$0.25 each expiring 22/11/2027)
- 5.00 Million options (exercisable at \$0.25 each expiring 22/11/2026)
- 330,000 employee options (exercisable at \$0.30, \$0.40, \$0.50 each expiring 06 April 2027)

## BOARD AND MANAGEMENT

**PETER MCNEIL**

Non-Executive Chairman



Peter has a BSc in Geology and MSc in Geochemistry. 40 years experience in the mining industry. Significant technical, commercial and corporate experience across exploration, finance and stakeholder liaison. Managing Director, Director and Chairman of multiple ASX and TSX-V listed companies including: Frontier Resources Ltd, Coppermoly Ltd, Macmin Silver Ltd, New Guinea Gold Corp, South Pacific Minerals Corp and VanGold Ltd.

**ALEX BIGGS**

Chief Executive Officer



Alex has a BEng (Hons) in Mining Engineering and a HNC in Mechanical Engineering. +23 years' experience in the engineering and mining sectors including corporate, operations, consulting and finance including capital raising as well as deal structuring and commercial expertise. Member of the Australian Institute of Mining and Metallurgy, graduate of the WA School of Mines and VP of the WA School of Mines Alumni. Currently NED at Metals Australia, previously MD of Critical Resources and senior/principal roles in multiple companies in mining and finance.

**DR KAREN LLOYD**

Non-Executive Director



Karen has a BSc (Hons) Geology a MBA and a PhD in Mining and Metallurgical Engineering. 26 years' international resource industry experience gained with major mining, consulting and investment houses globally. Specialises in mineral asset valuation and consulting and advisory in support of project finance for merger and acquisition activity. Currently Non-Executive Director of K2O Potash Corp. Ltd, Tungsten Metals Group Ltd and Chief Strategy Officer for Genmin Limited.

**FRANCESCO CANNANO**

Non-Executive Director



Frank is an experienced public company director and entrepreneur with significant business and investment experience across a industries. Strong network of investors throughout the Asia-Pacific region. Extensive experience in capital raises, investments and IPOs. Assisted several listed and unlisted companies achieve their growth strategies through the raising of capital and the acquisition of assets. Currently a Non-Executive Director of Golden Mile Resources Ltd, Western Mines Group Ltd and Stemcell United.

**CRAIG SHARPE**

Non-Executive Director

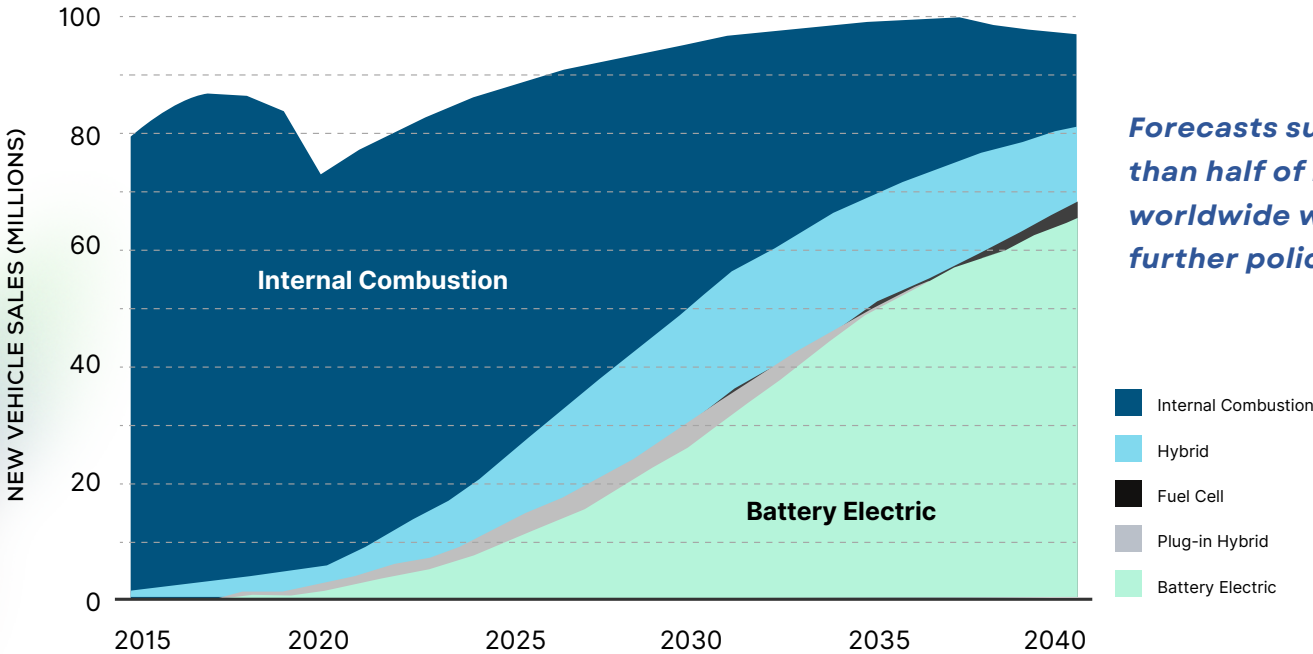


Craig has a BComm in Economics and Finance, a MBA and is a graduate of the AICD. +25 year's experience in finance across Asia Pacific including FX, institutional, retail, corporate and management. A large network of investor and industry professionals across the Asia Pacific region. Advised and worked with many companies in relation to IPO's, raising capital and planning. Experience in senior management roles, running private client businesses and more recently, spent the past 11 years at Macquarie and Bell Potter.

# THE GREEN TECH REVOLUTION

A significant increase in critical minerals is required for the rapid deployment of clean energy technologies as mandated by global government policy

GLOBAL VEHICLE SALES OUTLOOK <sup>7</sup>

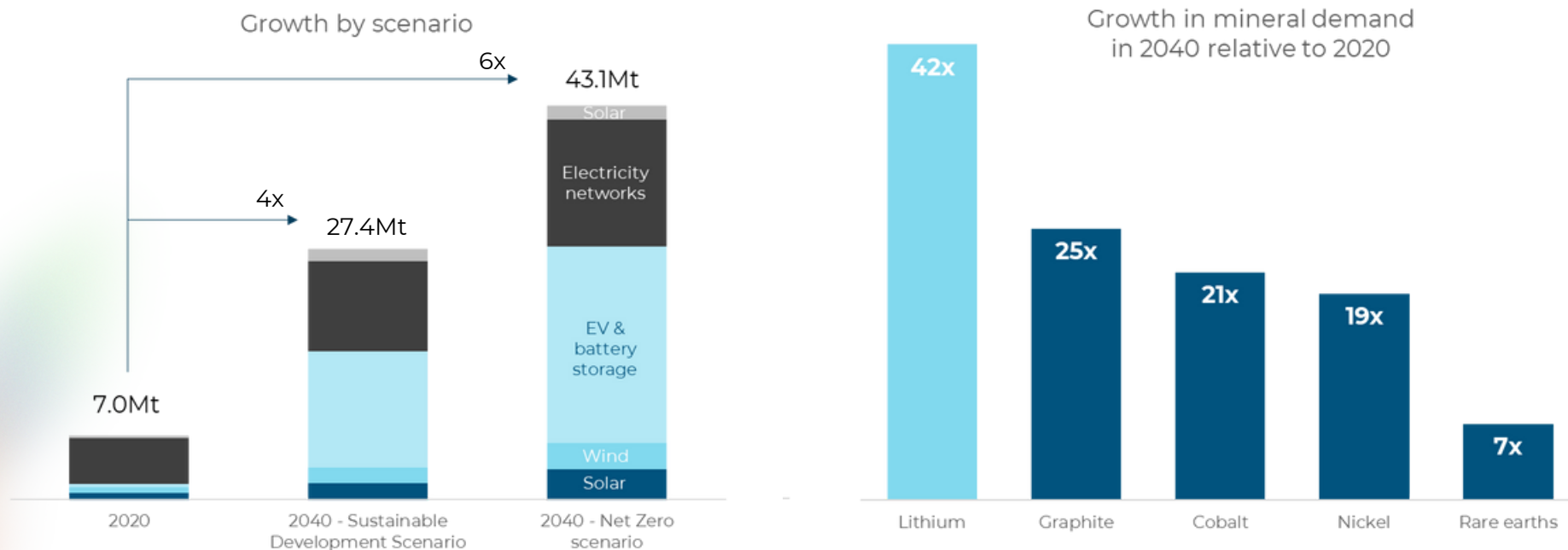


*Forecasts suggest that by 2035, more than half of new passenger vehicles sold worldwide will be electric, even without further policies to promote change*



# THE CRITICAL MINERALS MARKET

Overall critical minerals demand to rise by as much as 6x but individual minerals led by Lithium to rise even faster



# GROWTH POTENTIAL

Australia is positioned to become the world's preferred producer of high quality critical minerals

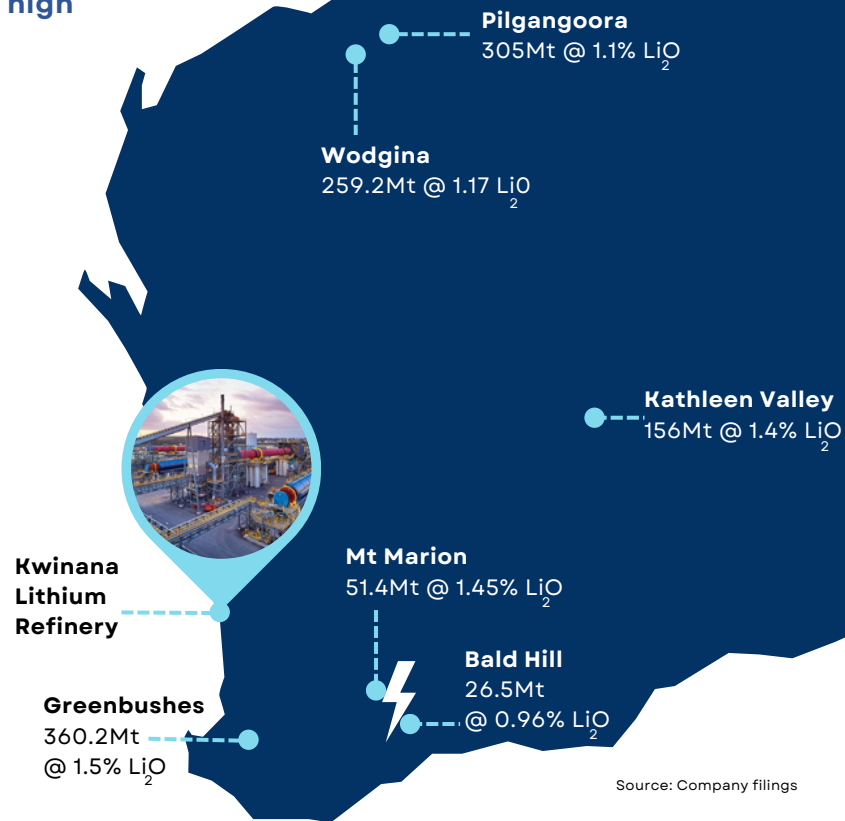
Australia leading the world in production and expertise with ~52% of world Lithium production

Australian government critical minerals strategy expected to prioritise the development of domestic downstream processing and manufacturing industries

Nationalisation of Lithium Resources occurring in other regions

Currently production isn't near required levels to meet projected demand

## Mineral Resources of Operating Mines





# PROJECTS

**Highly prospective assets in tier-1 jurisdiction with strong exposure to critical minerals**

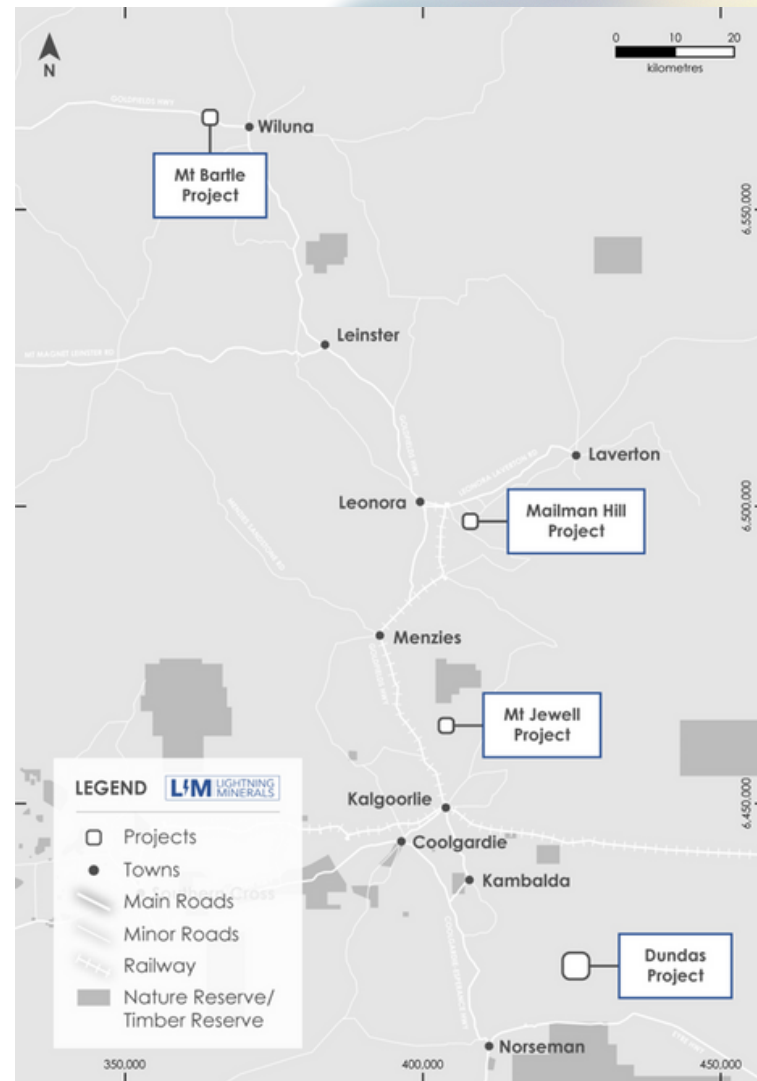
Four project areas in Western Australia

Critical minerals focus including Lithium, Nickel, Cobalt, Copper, REE and PGEs

Clear exploration strategy focused on Lithium and critical minerals

Focus on Dundas licences – next to Liontown Resources' (ASX:LTR) Buldania Lithium project and Bald Hill Lithium and Tantalum Mine

Strong indicators on all projects for potential significant upside with further exploration - all projects in proven mineral districts



# DUNDAS PROJECT

Exploration underway in an emerging Lithium super province. Our flagship and focus

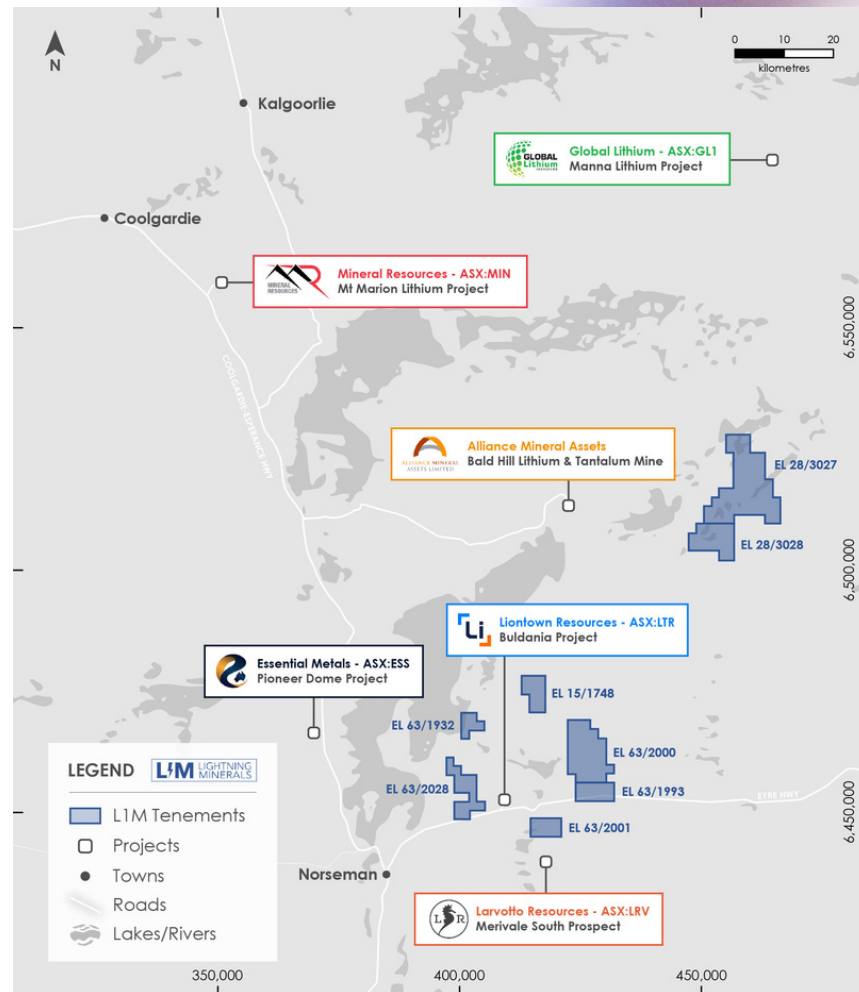
Interests in 8 Licences in Dundas region of Western Australia.  
Total land area = 454km<sup>2</sup>

Highly prospective: Correct lithologies and region for potential discoveries in Lithium, Nickel, Copper, PGE's and Gold

Strong results from soil sampling and geophysics interpretation identifying 28 target areas<sup>1</sup>

Soil sampling and geophysics complete across all tenements yielding multiple drill targets<sup>1, 2, 4, 5, 8</sup>

Inaugural drill program planned for Q2 CY23



# DUNDAS RESULTS

## Strong Lithium results justify exploration drilling across multiple targets on Southern Licences

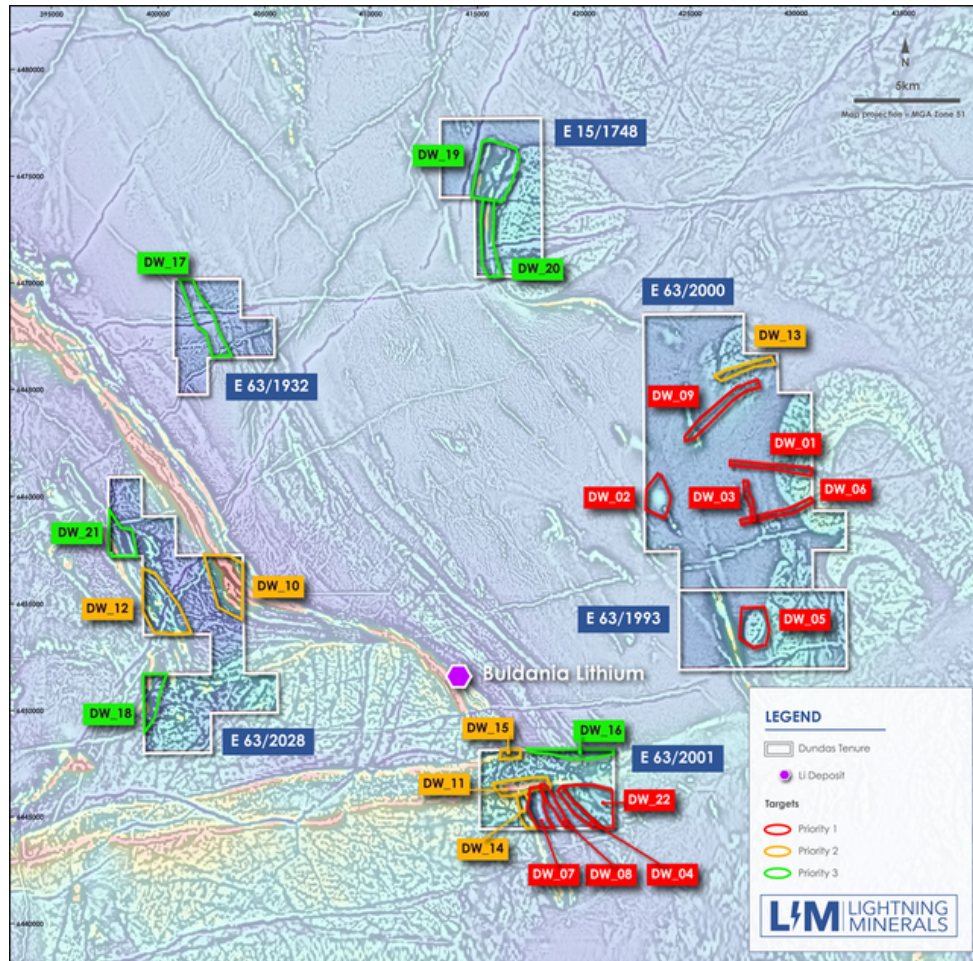
Lithium anomalism identified across multiple leases with supported by identification of 28 targets through geophysics interpretation<sup>1</sup>

8km<sup>2</sup> Lithium anomalism up to 218ppm Li identified on tenement E63/2000.<sup>2</sup> Further infill auger soil sampling to be completed to define drill targets<sup>3</sup>

4km<sup>2</sup> Lithium anomalism up to 112ppm Li and 135ppm Rb identified on lease E63/2001.<sup>4</sup> Mapped pegmatites also identified<sup>5</sup>

Leases E63/2000 and E63/2001 are to the east (10km) and south (5km) of Lontown's Buldania asset. E63/2001 also north (8km) of Larvotto Resources Merivale prospect

Multiple targets present significant news flow opportunities over coming months





# DUNDAS RESULTS

**Northern licences 30km East of Bald Hill Lithium Tantalum Mine demonstrate strong potential**

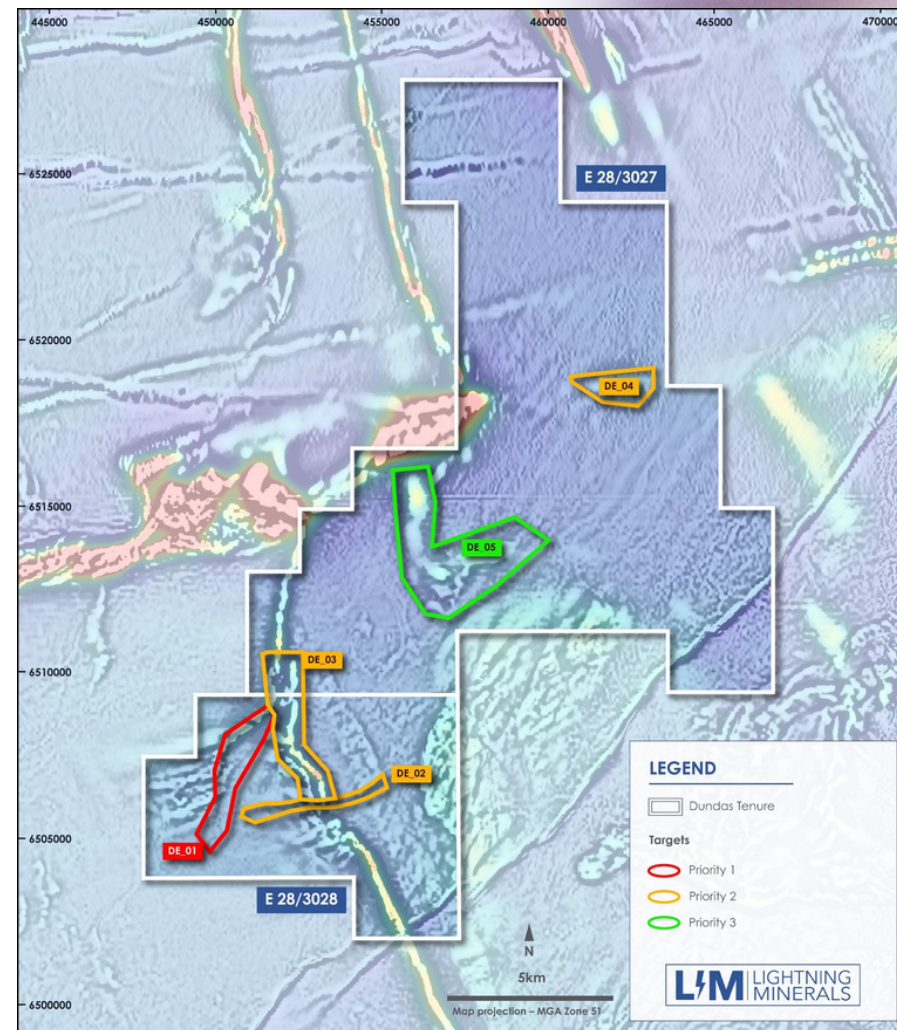
Multiple target areas identified through geophysics interpretation<sup>1</sup>

Three large lithium target areas identified, with the largest being ~35km<sup>2</sup> with assays up to 147ppm Li<sup>8</sup>

Located 30km to east of Bald Hill Lithium-Tantalum mine with clear ultramafic and granitic lithologies







Underexplored region with proximal producers in close proximity and within 50km of Dundas South tenements

Large land holding presenting significant upside opportunity



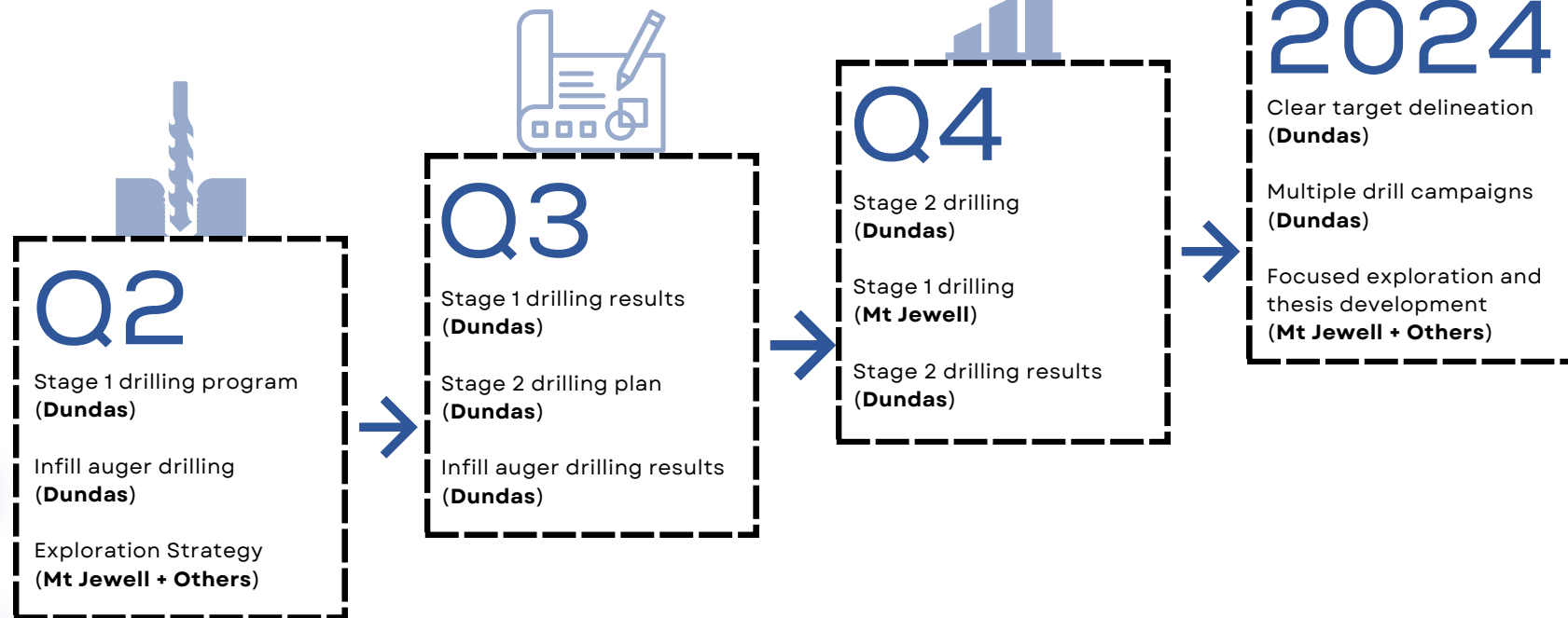
# OTHER PROJECTS

Additional exposure to critical minerals, base metals and gold in Western Australia

<b>Mt Jewell</b> 9km <sup>2</sup>		<ul style="list-style-type: none"> <li>• Highly prospective for Nickel</li> <li>• Proximity to primary Nickel mines such as Scotia to the west, Carr Boyd to the East and Silver Swan 25km south-east</li> <li>• Some historic drilling - source of mineralisation yet to be found</li> </ul>
<b>Mailman Hill</b> 102km <sup>2</sup>		<ul style="list-style-type: none"> <li>• Highly prospective for Gold</li> <li>• Located directly south of Cavalier Resources' (ASX: CVR) Crawford deposit and adjoins CVR lease</li> <li>• 10km west of Glencore's Murrin Murrin operations</li> </ul>
<b>Mt Bartle</b> 396km <sup>2</sup>	  	<ul style="list-style-type: none"> <li>• Highly prospective for Copper, Zinc and Lead</li> <li>• 27km to north-west of Wiluna</li> <li>• Historic anomalous targets and gossans (Licence pending)</li> </ul>
<b>Further Acquisition Strategy</b>		<ul style="list-style-type: none"> <li>• High quality assets which are synergistic to the battery metals thematic</li> <li>• Tier-1 jurisdictions</li> <li>• Solid geological and technical foundations</li> </ul>

# INDICATIVE NEWS FLOW

Highly motivated team with a history of successful project execution, strong news flow and creation of catalysts for growth



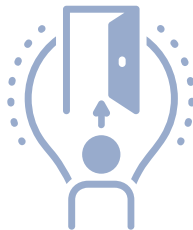
# COMMITMENT TO ESG

Commitment to ESG positively impacts shareholder value through preparedness for emerging compliance requirements and readiness for ESG only funding



## SUSTAINABILITY

Less water, less energy, less waste equals lower costs. Sustainability works in our favour as much as the environment's.



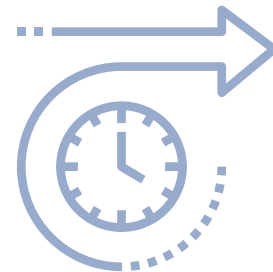
## OPPORTUNITY

Empowering workers in remote communities. Developing positive engagement at a company and industry level.



## COLLABORATION

We create partnerships. Our stakeholder and partners are an intrinsic part of our business. Collaboration equals efficiency equals speed to market.



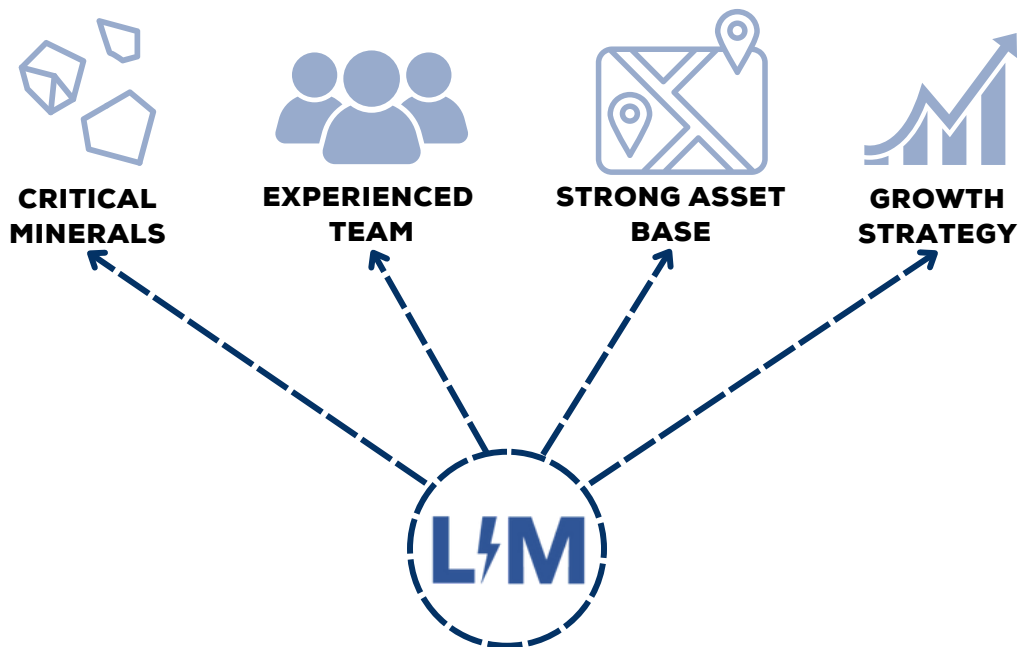
## FUTURE FOCUS

Projects focused on evolving critical minerals and green energy thematic. The inputs need to be as sustainable as the outputs.



# INVEST IN LIGHTNING

Exposed to the booming critical minerals and Lithium markets with a strong project portfolio, a driven team and clear growth strategy



# REFERENCES

- 1 ASX announcement 09 February 2023 - Geophysical interpretation identifies 28 target areas
- 2 ASX announcement 23 March 2023 - Lithium soil anomaly identified at Dundas South project
- 3 ASX announcement 31 March 2023 - Infill auger program to target lithium anomaly at Dundas
- 4 ASX announcement 23 January 2023 - Soil Sampling identifies Lithium-Rubidium anomalism
- 5 ASX announcement 13 December 2022 - Multiple pegmatite occurrences identified at Dundas project
- 5 ASX announcement 16 February 2023 - Further pegmatite outcrops identified
- 6 Deloitte analysis, IHS Markit, EV-Volumes.com
- 7 Davide Castelvecchi, 17 August 2021 - Electric cars and batteries: how will the world produce enough? Nature.com
- 8 ASX announcement 01 May 2023 - Further lithium anomalism identified at Dundas project

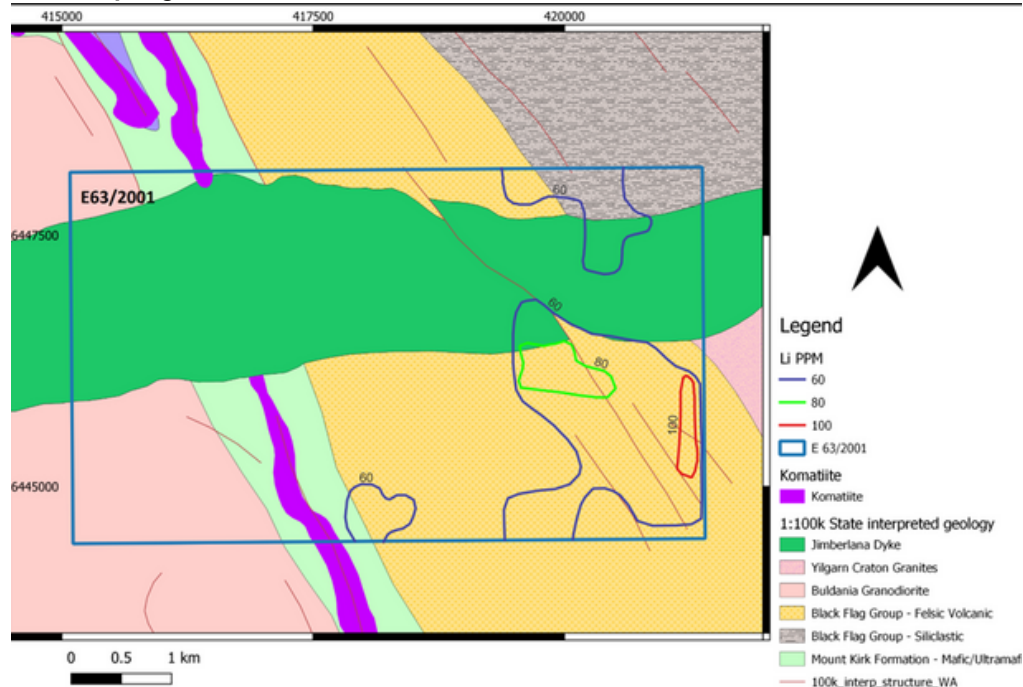
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# DUNDAS SOUTH LITHIUM RESULTS

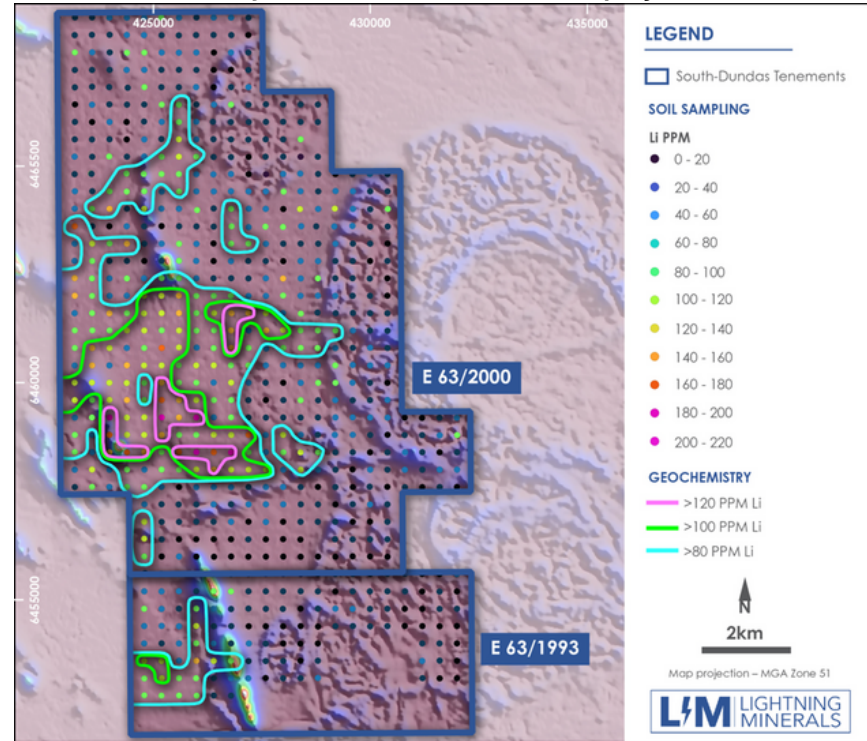
ASX announcement 23 January 2023

Soil Sampling identifies Lithium-Rubidium anomalism



ASX announcement 23 March 2023

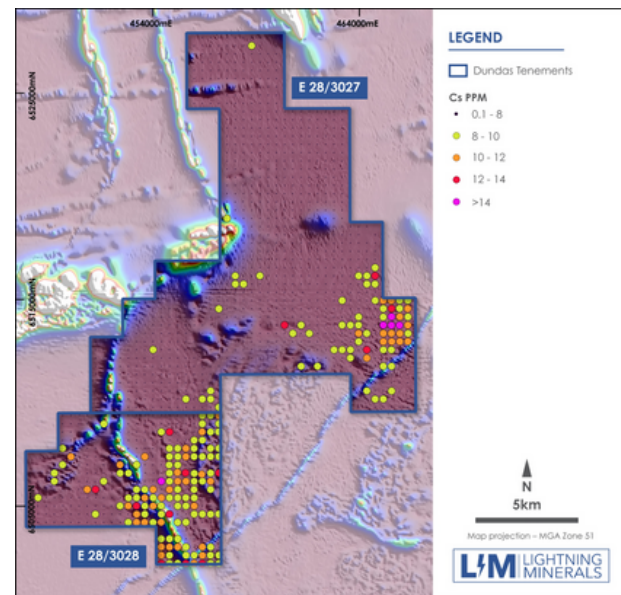
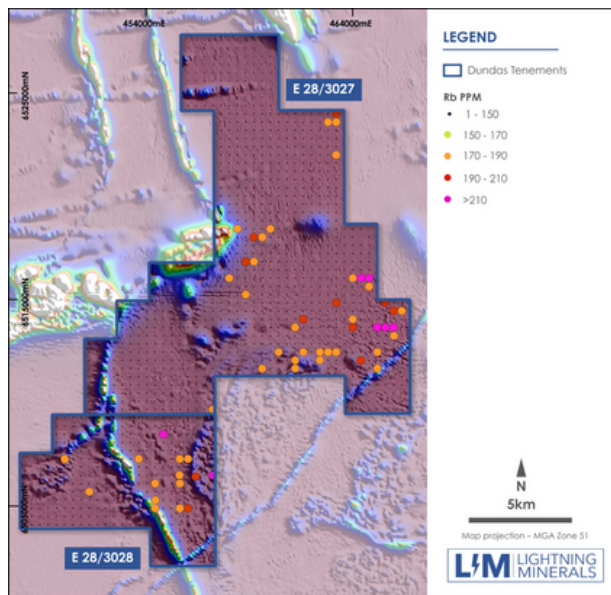
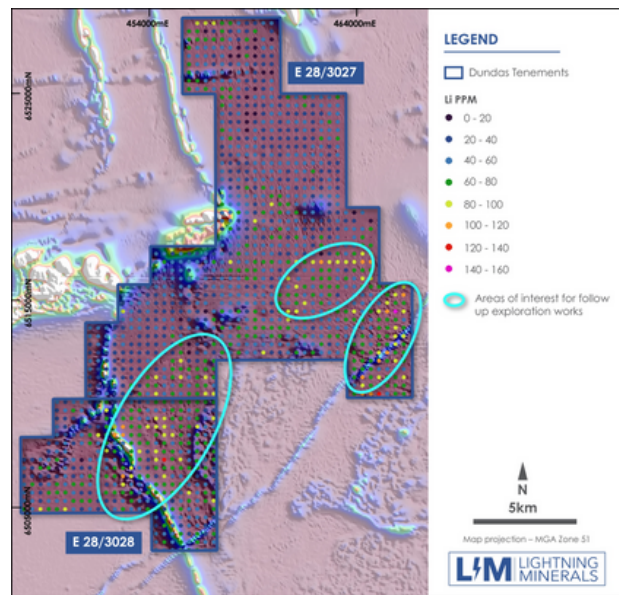
Lithium soil anomaly identified at Dundas South project



# DUNDAS NORTH LITHIUM RESULTS

ASX announcement 01 May 2023

Further lithium anomalism identified at Dundas project





# CRITICAL MINERALS FOR THE GREEN ENERGY FUTURE

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