

## Lodestar Minerals AGM November 2022

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Bill Clayton, who is a Competent Person and a Member of the Australian Institute of Geoscientists. Bill Clayton is Managing Director and a full-time employee of Lodestar Minerals Limited. Mr Clayton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Clayton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The information in this announcement that relates to previously released exploration results was disclosed under JORC 2012 in the ASX announcements dated:

- 17th July 2014 "Lodestar Corporate Presentation".
- 9th April 2021 "Jubilee Well Acquisition Along Strike from Sunrise Dam."
- 15th December 2021 "Earaheedy-Imbin Exploration Update".
- 11th February 2022 "Lithium Potential Upgraded at Coolgardie West".
- 31<sup>st</sup> October 2022 "September 2022 Quarterly Activities Report".

These announcements are available to view on the Lodestar website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



# Investment summary

Transitioning from Target Generation to Drill Testing

A Diversified Portfolio of Base Metal, Lithium and Gold Projects in Western Australia with multiple targets and ongoing news flow

- Earaheedy Base Metal Project (Cu-Ag-Au and Zn-Pb-Ag)
  - Multi-element geochemistry completed over 30 EM conductor drill targets.
  - First FLEM targets selected, heritage surveys completed, drilling CY2022 on receipt of heritage clearance and statutory approvals received.

### Coolgardie West Lithium

- Priority 2km long LCT pegmatite target defined by soil geochemistry. Drilling planned Q1 CY2023.
- **Nepean Nickel Project** (LSR- 20%) in JV with Auroch Minerals (ASX:AOU).
  - Nepean JORC 2012 shallow indicated and inferred resource of 236kt at 1.5% Ni and 0.11% Cu for 3,625t of contained Ni and 252t of contained Cu<sup>1</sup>.
  - Scoping study to assess near term development opportunity.
- Ned's Creek JV (Gold, VAN earning 51%)
  - RC drill program targeted magnetic anomaly along strike from Contessa. Assay results pending.
- Jubilee Well (Gold)
  - RC drill program targeted gold anomalies in historic drilling along strike from 100k oz Golden Delicious deposit. Assay results pending.

# **Corporate overview**

### **Board and Senior Management**

#### Chairman – Ross Taylor

- Chartered Accountant and finance professional with extensive experience in global investment banking and financial markets.
- Senior positions with Deutsche Bank, Bankers Trust and Barclays Capital.
- Largest shareholder in Lodestar.

#### Managing Director – Bill Clayton

- Geologist with 30 years' experience in Western Australian greenfields exploration, project generation and evaluation roles.
- Previous senior roles with LionOre, Forrestania Gold, Outokumpu and CSA Global.

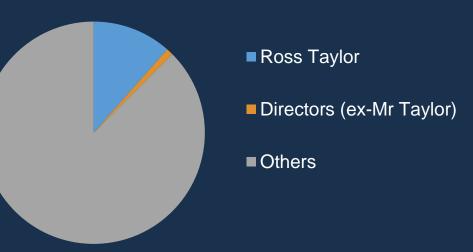
#### **Executive Director – David McArthur**

 Accountant with broad range of experience in financial and corporate management of public listed companies gained over the past 28 years.

#### **Capital structure**

ASX code	LSR
Shares on issue	1,738.4m
Options on issue	162.7m
Share price	0.5¢
Market capitalisation	A\$8.69m
Cash & marketable securities (30 Sep 21)	A\$1.2m
Directors	19%
Top 20 shareholders	27%

### **Lodestar Shareholders**



# Project Overview (Ni Cu Zn Pb Li Au)

### Nepean Nickel Project (LSR 20%)

- Historic high-grade underground nickel mine produced 32,303t of nickel metal at 2.99% Ni<sup>1</sup>.
- Shallow resource of ~3,625t contained nickel at 1.5% Ni (JORC 2012)<sup>2</sup>.
- Scoping study assessing open pit development potential.
- Lithium (LCT) pegmatite greenstone terrane.

### **Coolgardie West Project (LSR 100%)**

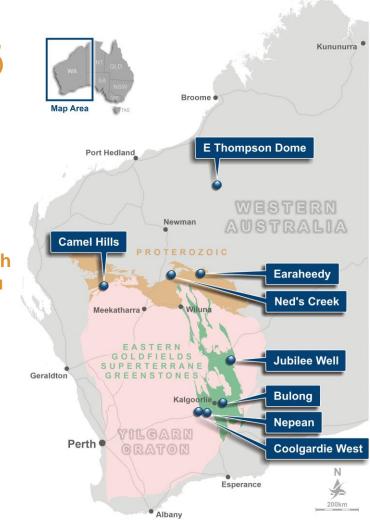
- 10km west of Coolgardie. Prospective for Lithium, Gold.
- LCT pegmatite potential identified by strong soil anomaly

### Earaheedy - Craton Margin (LSR 100%)

- Located in the emerging Earaheedy province: Cu-Co-Au and Zn-Pb targets.
- Up to 7% copper in historic drilling
- 30 EM conductors being prioritised for drilling.

#### Ned's Creek (VAN earning 51%), Bulong, & Jubilee Well Gold Projects (LSR 100%)

- All located in the Eastern Goldfields Superterrane.
- Shear-hosted lode gold potential.
- Ned's Creek
  - Drilling completed over magnetic target in Contessa shear zone.
- Jubilee Well between Granny Smith and Sunrise Dam multi-million oz Au deposits
  - Drilling completed over historic gold anomalies 2km north of AngloGold's Golden Delicious mine.

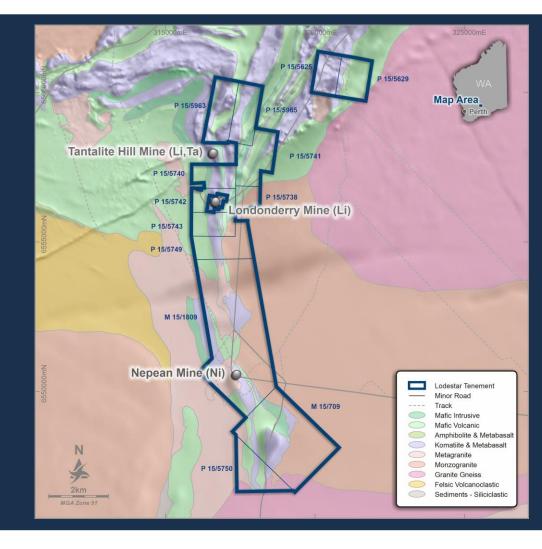




- 1. See Auroch Minerals ASX (ASX:AOU) release dated 11<sup>th</sup> November 2020.
- 2. See Auroch Minerals ASX release dated 1<sup>st</sup> September 2022.

## Nepean Nickel Project JV (LSR-20%) Historic Nepean Nickel Mine

- 25km south of Coolgardie, in JV with Auroch Minerals.
- Produced **32,303t of nickel metal in ore at 2.99% Ni** before mining ceased due to the low nickel price.
- Recent step-out drilling from the remnant resource intersected shallow, high grade nickel within the mine ultramafic sequence<sup>3</sup>:
  - 8m at 4.30% Ni & 0.37% Cu from 35m including 2m at 6.8% Ni and 0.62% Cu from 37m (NPRC053)
  - 8m at 3.21% Ni & 0.13% Cu from 63m including 2m at 7.51% Ni & 0.39% Cu from 68m (NPRC052)
- JORC 2012 indicated and inferred resource of shallow mineralisation (above 290mRL) of 236kt at 1.5% Ni (0.6% Ni cut-off) and 0.11% Cu for 3,625t of contained nickel and 252t of contained copper.
- Favourable metallurgical test work and shallow resource support scoping study to assess potential for open pit mining.





## Imbin Base Metal Copper-Gold Project (LSR-100%) Earaheedy Margin

- Underexplored 960 sq km tenure and 50km of strike over Earaheedy basin NE margin.
- Emerging Earaheedy metallogenic terrane with Tier 1 base metal potential.
- Copper in drilling at Main Gossan hosted by carbonaceous shale, interbedded with pyritic siltstone and breccia (e.g. 36m at 0.71% Cu, incl. 2m at 4.65% Cu and 3m at 1.97% Cu)<sup>4</sup>.
- Regional targeting
  - Heli-EM identified 30 discrete EM conductors for follow up geochemistry<sup>5</sup>.
  - Geochemistry completed. Collaboration with CSIRO's NextGen Ultrafine project.
  - First FLEM targets identified for drilling.





4. See Lodestar's ASX release dated 17<sup>th</sup> July 2014.

5. See Lodestar's ASX release dated 15<sup>th</sup> December 2021.

### Imbin Base Metal Copper–Gold (LSR-100%) Earaheedy Margin

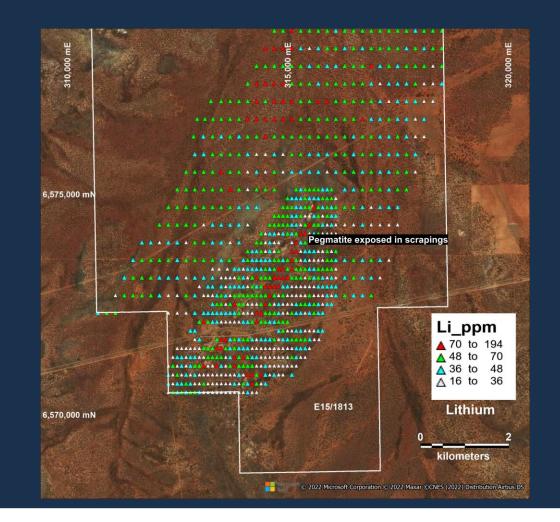
- Under explored sediment-mafic terrane, same age as DeGrussa, with significant copper potential within the NE margin.
- Majority of the EM conductors lie under sand cover with no previous drilling.
- Strong association between discrete EM conductors and major (feeder) or secondary structures that may represent long-lived fluid conduits as source of mineralisation.
- Two FLEM targets along strike from Main Gossan prioritised for drilling.
- UFF+<sup>TM</sup> assay results now with CSIRO for data interpretation.





## Coolgardie West Lithium–Gold (LSR-100%) Coolgardie West

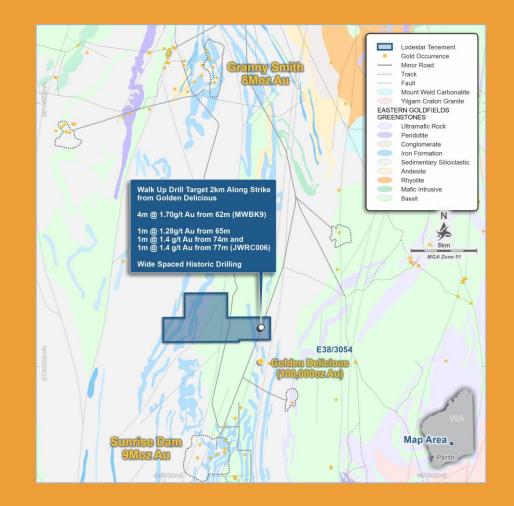
- Geochemical sampling completed across the tenement.
- Extensive 2.4km long Li, Cs, Rb anomaly associated with poorly outcropping pegmatite<sup>6</sup>.
- Anomaly related to intense biotite alteration of mafic rocks in footwall to pegmatite.
- Lithium in wall rock alteration is strong evidence of LCT potential and the pegmatite is a priority drill target.
- Heritage agreements being progressed.





### 9km north of 9Moz Au Sunrise Dam (LSR-100%) Jubilee Well

- 2056ha within a major north north west trending structural corridor – Laverton Tectonic Zone<sup>7</sup>.
- Completed heritage agreements and site clearance.
- 9 RC holes tested walk up drill target 2km north of AngloGold's Golden Delicious mine.
- Shear zone with local strong silicification, sericite and pyrite alteration and felsic intrusives along strike from Golden Delicious.
- Samples submitted for assay, results pending.





## Ned's Creek Project (VAN earning 51% by spending \$4.5M on exploration) Yerrida margin

- Multiple basement gold intersections on southern margin of 6km long Contessa granite:
  - Contessa
  - Central Park
  - Gidgee Flat
- Potential for open-pitable resource, 25km south of the Marymia Gold Project and 35km east of the Plutonic gold operation.
- RC drilling tested magnetic anomaly between Contessa and Central Park completed. Silica-pyrite alteration within diorite host and adjacent to granite contact. Assay results pending<sup>8</sup>.
- Multiple gold and pathfinder anomalies in regional drilling and surface geochemistry require testing – underexplored extension of the Eastern Goldfields Superterrane.







- Nepean Exposure to development potential at Nepean Nickel Project JV.
- Historic high grade nickel mine within trucking distance of Kambalda.
- Scoping study assessment of open pit mining.
- 2
- **Coolgardie West –** Large, well defined lithium and gold targets prioritised for drilling.
- Earaheedy large scale base metal project Reassessment of the underexplored Earaheedy Province following Rumble Resource's major Zn-Pb and polymetallic discoveries:
  - Completed regional EM and geochemical programs.
  - 30 discrete EM anomalies undergoing assessment. Geochemistry will rank targets for FLEM and drilling.



- Advancing Eastern Goldfields gold projects
  - **Jubilee Well** Initial RC drilling of historic anomaly within 17Moz Au Sunrise Dam Granny Smith corridor.
  - **Ned's Creek JV** Magnetic anomaly tested.



Agile explorer with experienced Board and Management contributing significant funding and fully aligned with shareholders to grow the company.

# Investment Proposition

Base Metal, Lithium and Gold Explorer with major upside potential