



# Lodestar AGM

November 2021

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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".
- 20th October 2015 "Big Sky RC Drill Results High-Grade Gold"
- 22<sup>nd</sup> December 2020 "Camel Hills Aircore Drilling Results".
- 21<sup>st</sup> April 2021 "Investor Presentation General Meeting Update".
- 2<sup>nd</sup> September 2021 "Multiple Drill Targets Identified from Earaheedy-Imbin Heli-EM Survey".
- 22<sup>nd</sup> October 2021 "Exploration Update Ned's Creek JV".

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

Diversified portfolio of base metal and gold projects in Western Australia with ongoing news flow

- Nepean Nickel Project (20%) in JV with Auroch Minerals (ASX:AOU) currently undergoing scoping study:
  - On-going evaluation of multiple drill targets.
  - Forecast high demand growth for nickel in both batteries and stainless steel materials driving current M&A activity.
- Imbin Base Metal Project (Cu-Ag-Au and Zn-Pb):
  - Multiple conductor drill targets identified in the emerging Earaheedy metallogenic province.
  - Controlling 50km strike extent on the opposite basin margin to Rumble Resources' (ASX:RTR) major Zn-Pb discovery.
- Ned's Creek JV (Gold, VAN earning 51%)
  - 3700m RC program completed.
- **Bulong Gold Project** 40km east of Kalgoorlie.
- **Jubilee Well (Oro Del Sur)** 8.6km north of 9Moz Au Sunrise Dam:
  - World-class Laverton tectonic zone, walk-up drill target along strike from 240,000oz Au Golden Delicious deposit<sup>1</sup>.

<sup>1.</sup> Measured, indicated and Inferred Resource of 6.36Mt at 1.17g/t Au for 0.24Moz. See AngloGold Mineral Resource and Ore Reserve Report 2020 for details. https://www.aga-reports.com/20/OP.

## **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.

#### Non-Executive Director – David McArthur

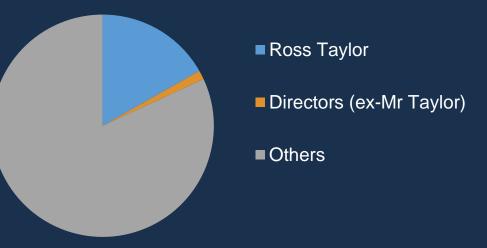
 Accountant with broad range of experience in financial and corporate management of public listed companies gained over the past 28 years.

#### **Capital structure**

ASX code	LSR
Shares on issue	1,390.9m
Options on issue	216.0m
Share price	1.0¢
Market capitalisation	A\$13.9m
Cash & marketable securities (30 Sep 21)*	A\$0.37m
Directors	18%
Top 20 shareholders	43.7%

\* \$1m capital raising successfully completed October 2021

**Lodestar Shareholders** 



## Project overview (Ni Au Cu Zn Pb)

#### Nepean Nickel Project (LSR 20%)

- Historic high-grade underground nickel mine produced 32,303t of nickel metal at 2.99% Ni<sup>1</sup>.
- Remnant resource of ~13,250t contained nickel at 2.2% Ni (JORC 2004)<sup>2</sup>.
- 10km strike of underexplored mine ultramafic sequence.
- Additional gold and lithium potential.

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

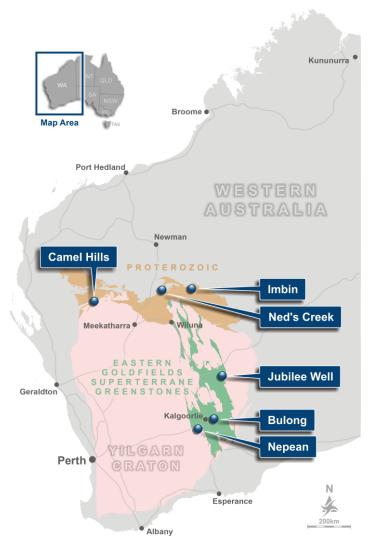
- Located in the Earaheedy province Zn-Pb and Cu-Au potential.
- Extensive Cu-Au geochemical anomalies over 20km strike.

#### 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.
- Multiple advanced to early stage exploration targets.

#### Camel Hills-Craton Margin (LSR 100%)

Shear zone related lode gold in proximity to Gascoyne Resource's 0.5Moz Au Glenburgh gold deposit<sup>3</sup>.



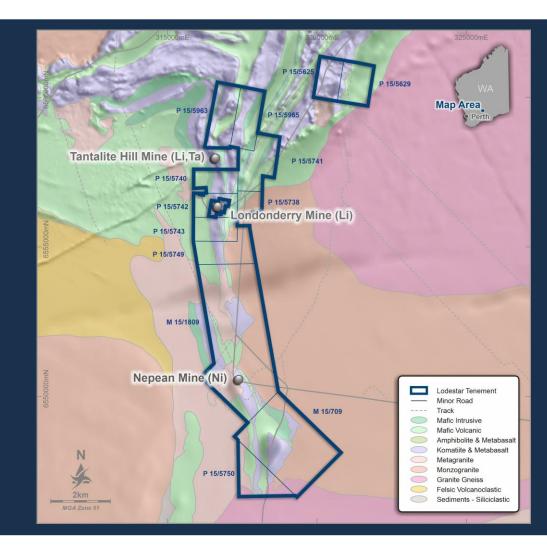


2. See Auroch Minerals (ASX:AOU) ASX release dated 11<sup>th</sup> November 2020.

3. Indicated and Inferred. For details see Gascoyne Resources (ASX:GCY) ASX release dated 18th December 2020.

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

- 25km south of Coolgardie, in JV with Auroch Minerals (80%).
- Historic underground mine 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>4</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)
- Systematic exploration over 10km of strike and the near mine environs continues:
  - Nepean Deeps drilling underway<sup>5</sup> testing potential down plunge extension of mineralisation beneath historic workings.
  - Confirm, upgrade and extend historic resource.
  - IP survey to identify regional targets.
- Scoping study commenced to assess potential for open pit mining.



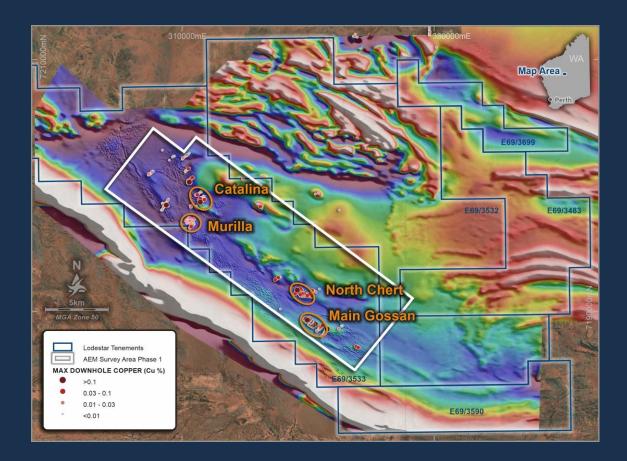


4. See Auroch Minerals (ASX:AOU) ASX release dated 31<sup>st</sup> March 2021

5. See Auroch Minerals ASX release dated 19<sup>th</sup> August 2021.

### Imbin Cu-Au and Zn-Pb Project (LSR 100%) Earaheedy margin

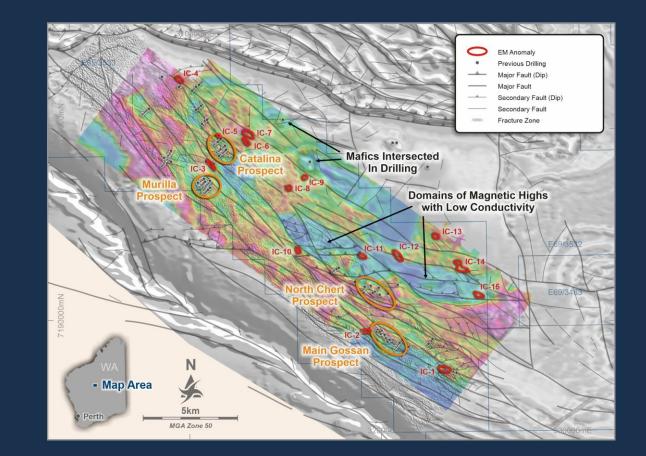
- Underexplored 900 sq km land position and 50km of strike over Earaheedy basin margin.
- Right geological credentials nascent Earaheedy metallogenic terrane.
- Includes area of Yelma-Frere unconformity which hosts Rumble Resources' major Zn-Pb discovery 70km WSW.
- Extensive Cu-Au anomalies in surface sampling and shallow drilling<sup>6</sup>.
- Copper in drilling at Main Gossan hosted by carbonaceous shale, interbedded with pyritic siltstone and breccia.
- Extensive sand cover inhibits surface geochemistry.
- First-pass geochem sampling and heli-EM completed heritage clearance and PoW submissions underway.





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

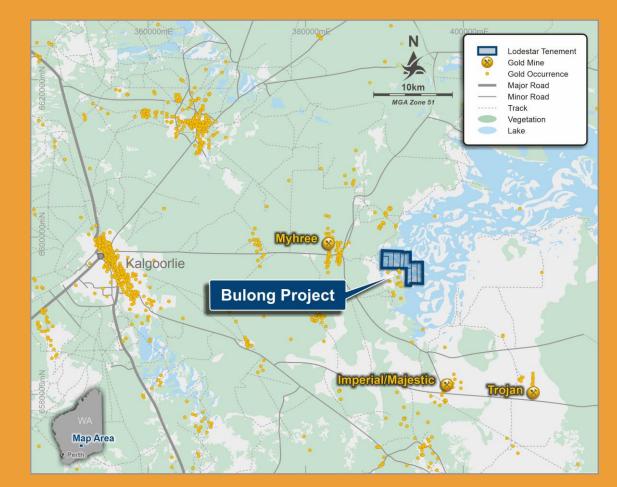
- Recent heli-EM survey (NRG-Excite<sup>™</sup> EM) identified 15 priority anomalies (in red) in the Imbin corridor as potential Cu-Ag±Au drill targets<sup>7</sup>.
- Majority of the 15 EM conductors identified lie under sand cover with no previous drilling.
- High-grade copper in historic drilling at the Main Gossan prospect indicates significant potential for copper mineralisation within the corridor.
- Strong association between discrete EM conductors and major (feeder) or secondary structures that may represent long-lived fluid conduits as source of mineralisation.
- Drilling will be prioritised pending the grant of two remaining tenements, heritage clearance, DMIRS statutory approvals and clearing.





### Bulong (LSR 100%) Eastern Goldfields

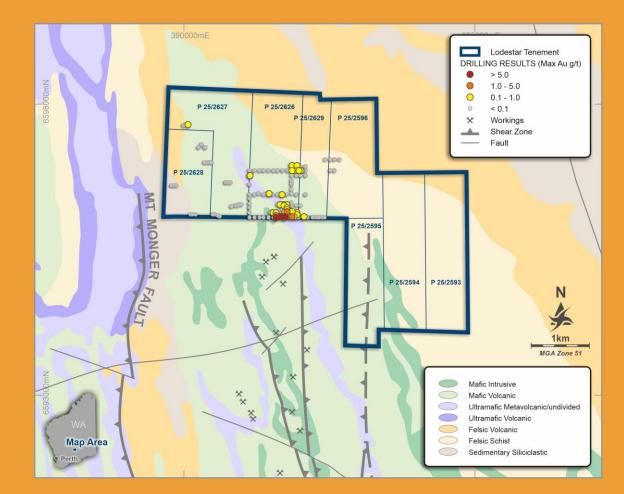
- 40km east of Kalgoorlie, 1317ha under tenure.
- Active neighbours including Black Cat Syndicate and Riversgold.
- Area represents a northern extension of the Glandore prospect.
- Gold mineralisation on southern boundary of P26/2626 in Western Mining's 1990s era drilling.
- Significantly underexplored prospective geology extends northwest under western margin of Lake Yindarlgooda and shallow lake sediment cover has resulted in minimal previous drilling.
- Up to 5,000m aircore drill program planned once access agreement is finalised.





### Bulong (LSR 100%) Eastern Goldfields

- Folded, layered gabbro-dolerite plunging shallowly NW beneath Lake Yindarlgooda tenements.
- 2.5km 5km of strike over layered mafic sequence with minimal drilling.
- Gold associated with sheared, magnetite-rich zones within layered gabbro, silicified dolerite and local felsic porphyry or granodiorite intrusions.
- PoW submitted for up to 5,000m of aircore drilling, targeting continuation of magnetic zones and major structural contacts.





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

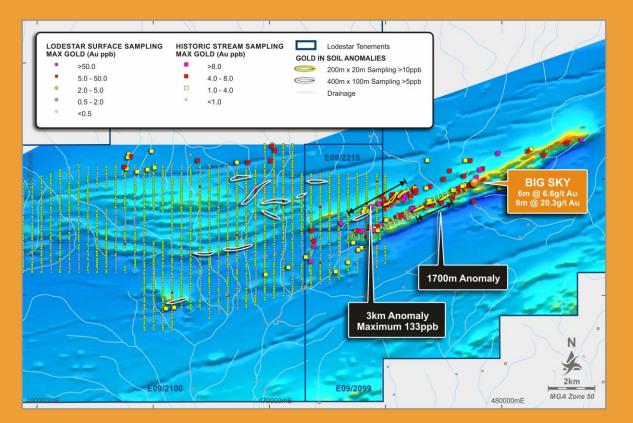
- Located along strike between the world-class Sunrise Dam and Granny Smith gold deposits.
- 8km north of the 9Moz Au Sunrise Dam deposit, same geological sequence.
- 2056ha within a major north north west trending structural corridor – Laverton Tectonic Zone<sup>8</sup>.
- Walk up drill target 2km north of AngloGold's 240,000oz Au Golden Delicious deposit (currently under development).
- RC drilling planned once access agreement is finalised.





### Camel Hills Gold (LSR 100%) Northern craton margin

- Covers Errabiddy Shear Zone, a major Archaean-Paleoproterozoic structural boundary.
- Targeting of regional geochemical anomalies resulted in discovery of high grade gold at Big Sky prospect (6m at 20.3g/t Au from 21m<sup>7</sup>).
- Reconnaissance drilling NE of Big Sky intersected 3m at 1.54g/t Au at the end of hole demonstrating potential along strike within the magnetic anomaly<sup>8</sup>.
- Surface geochemical sampling over the untested 5km magnetic zone NE of Big Sky completed.

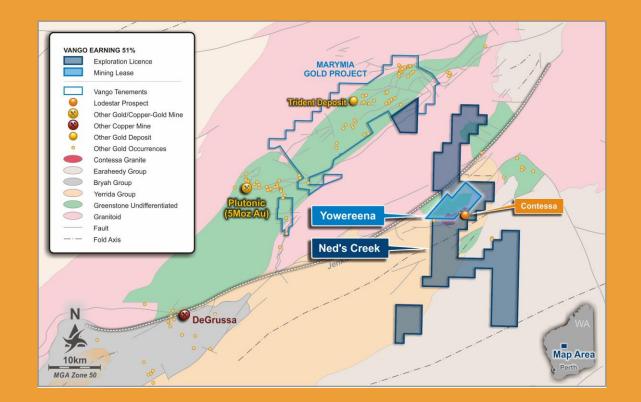




8. See Lodestar's ASX release dated 22<sup>nd</sup> December 2020.

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

- Multiple basement gold intersections in drilling on southern margin of 6km long Contessa granite:
  - Contessa
  - Central Park
  - Gidgee Flat
- Recent RC drilling now confirms significant alteration on the contact at Contessa<sup>9</sup>.
- Potential for open-pittable resource, 25km south of the Marymia Gold Project and 35km east of the Plutonic gold operation.
- Multiple geochemical anomalies in drilling and surface geochemistry require further testing underexplored extension of the Eastern Goldfields Superterrane.





## **Upcoming – Indicative work program**

PROJECT			
	Dec Q'21	Mar Q'22	Jun Q'22
Nepean JV: Nickel			
Drilling	Nepean Deeps drilling	Nepean Deeps drilling	
Geophysics	DHEM, IP		
Geochemistry			
Scoping Study			
Imbin: Cu-Au and Zn-Pb		Heritage clearance and access/POW	
Drilling		RC Drilling*	RC Drilling*
Geophysics	target definition		
Geochemistry	Geochemistry	Zn-Pb Geochemistry	
Bulong: Gold	Finalise heritage agreement	Heritage clearance	
Drilling		AC drilling*	AC drilling*
Geophysics			
Geochemistry			
Ned's Creek JV: Gold		Review and interpret results	
Drilling	RC drilling	RC Drilling*	RC Drilling*
Geophysics	-		
Geochemistry			
Jubilee Well: Gold	Finalise heritage agreement	Heritage clearance	
Drilling		RC drilling*	RC drilling*
Geophysics			
Geochemistry			
Coolgardie West: Gold, Nickel,			
Drilling			
Geophysics			
Geochemistry	Geochemistry	Assess results	



\* Timing to be confirmed and pending confirmation of targets and approvals and contractor availability. Completion in H1 2022 should permitting not be achieved in the December quarter 2021.

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Exposure to on-going drilling at Nepean Nickel Project, near-mine and regional programs underway:

- Historic mine within trucking distance of Kambalda.
- 40 year gap in exploration: 10km of underexplored mine stratigraphy, remnant resource, potential along strike and at depth.
- Imbin base metal project reassessing the underexplored Earaheedy province following Rumble Resource's recent major Zn-Pb discovery:
  - Numerous anomalies identified by heli-EM survey, timeline to drilling will be expedited when permitted.
  - Follow up geochemistry, ground EM and pathfinder geochemistry over heli-EM targets.



- Eastern Goldfields gold projects (major progress on heritage agreements)
- Bulong 40km east of Kalgoorlie.
- Jubilee Well walk up drill target identified in 17Moz Au Sunrise Dam Granny Smith corridor.



Ned's Creek JV with Vango Mining: Results of 3700m RC program pending.

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

## Investment Proposition

Base metals and gold explorer with major upside potential