

# DRILLING UPDATE

## **HIGHLIGHTS**

- Additional RC drilling to commence at the Ned's Creek Gold Project
- 24 Aircore holes for 1,397m completed at the Coolgardie West Gold Project

**Lodestar Managing Director Ed Turner commented**: "The first phase of RC drilling at Ned's Creek did not return significant gold mineralisation despite intersecting quartz veining and strong alteration. The magnetic anomalies have not been explained so two additional scissor holes are warranted and will commence shortly. Selected 1m intervals will also be submitted for assaying to ensure no mineralisation has been missed in the composite samples. Previous drilling campaigns have clearly shown the project potential for Au mineralisation. These previously untested magnetic targets have a great chance to display larger scale mineralisation such as the Wallaby gold deposit located 500 km southeast in the Yilgarn Craton of Western Australia with a reserve of 2.0 million ounces of gold and total resources of 7.1 million ounces of gold. We also look forward to receiving the gold assays from our Aircore drilling at Coolgardie West next month."

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Lodestar Minerals Limited ("LSR" or "the Company") (ASX:LSR) is pleased to report two additional RC holes for a planned total of 500m are about to commence at Ned's Creek. Composite assays from the first two RC holes have been received with no significant Au intersections. Both holes intersected magnetically altered mafic basalt but no intrusive granitoids.

This first phase of drilling included two RC holes comprising 510m which were completed targeting two previously undrilled magnetic targets (Table 1, Figure 1).

Tenement ID	Hole ID	Dip	Azimuth	MGA_Grid	MGA_East	MGA_North	RL	EOH (m)
E52/2456	LNRC001	-65	320	MGA94_Z50	786240	7190205	582	246
E52/2456	LNRC002	-60	310	MGA94_Z50	789120	7192815	570	264

#### Table 1: RC drill hole collar table

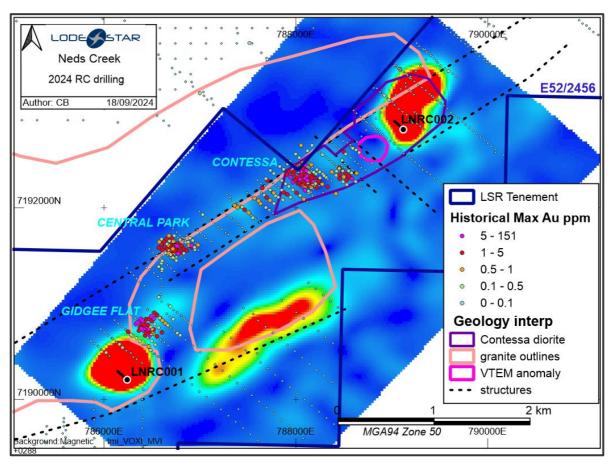


Figure 1: RC drill hole locations testing the two magnetic targets at Ned's Creek in relation to historical drilling displaying their max Au in ppm.

These first two holes were completed with a dip to the NW, targeting magnetic bullseye anomalies which are interpreted to have similarities to the multi-million ounce Wallaby



Deposit. The next phase of drilling will include scissor holes to test if the first two holes drilled subparallel to a mineralised intrusive body (Figures 2 and 3).

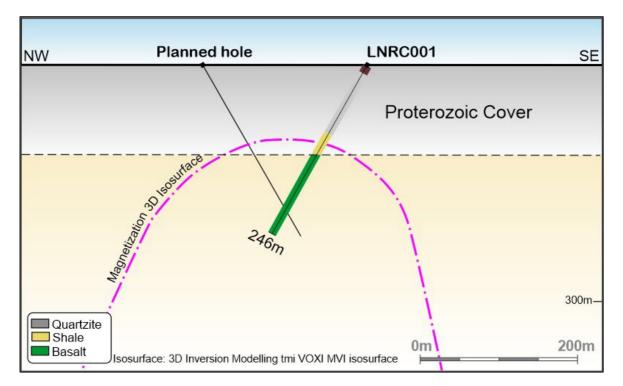


Figure 2: LNRC001 cross section with planned scissor hole and magnetic anomaly

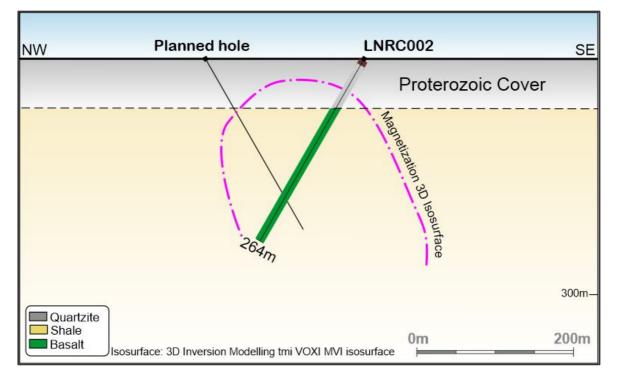


Figure 3: LNRC002 cross section with planned scissor hole and magnetic anomaly



All gold mineralisation identified previously is located along the Contessa granite (Figure 1) with exploration focusing on four main targets: Contessa, Central Park, Gidgee Flat and Brumby (Figure 1). High-grade gold mineralisation has been intersected at depth at Gidgee Flat (14 metres at 2.93 g/t gold from 77 metres in LNRC031<sup>1</sup> and 11 metres at 5.83 g/t gold from 195 metres in LNRC039<sup>2</sup>) and at Contessa (11 metres at 29 g/t gold from 140 metres, including 4.0 metre at 74 g/t gold from 140 metres in LNRC026<sup>2</sup>).

#### **COOLGARDIE WEST**

Lodestar has completed 24 aircore drillholes at Coolgardie West for a total of 1,397m. Assays are expected within the next four weeks. This drilling targeted two gold anomalies on the western limb of the Coolgardie Goldfield between two intrusive monzogranite (Figure 4).

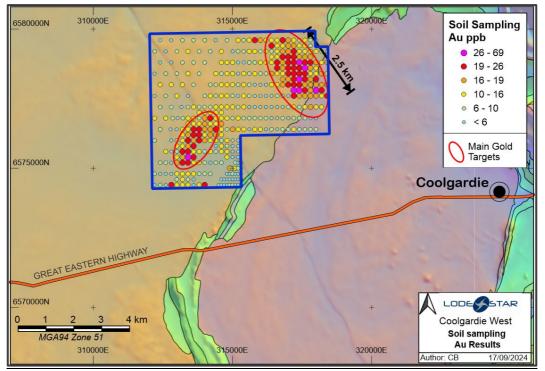


Figure 4: Coolgardie West soil sampling Au results over aeromagnetic TMI image and GSWA 1:500,000 scale interpreted bedrock geology

- 1. See ASX announcement dated 9 May 2018 (ASX:LSR)
- 2. See ASX announcement dated 22 May 2018 (ASX:LSR)



#### **About Lodestar**

Lodestar Minerals is an active Western Australian base metal and gold explorer. Lodestar's projects comprise the 100% owned Earaheedy, Ned's Creek and Coolgardie West projects (Figure 5).

Lodestar also has exposure to lithium via its strategic 9.3M shares and 27.5M performance rights in Future Battery Minerals (ASX:FBM) who own the Kangaroo Hills and Miriam lithium Projects in Western Australia and the Nevada Lithium Project in the US.

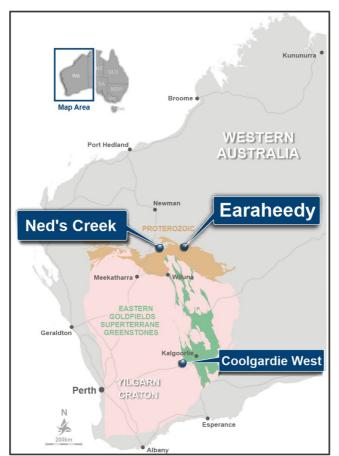


Figure 5: Lodestar's Project locations

This announcement has been authorised by the Board of Directors of the Company.

-ENDS-



#### **Contacts**

#### **Ed Turner**

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#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Ed Turner, Managing Director, who is a Member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Turner consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

This announcement is 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.

## **JORC Code, 2012 Edition – Table 1 report template**

#### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse</li> </ul>	<ul> <li>RC drill holes were sampled on 4m composites intervals throughout (last composite is between 1 - 4 m). Samples were collected from the cyclone every 1m and were laid in sequence on the ground in rows of 20.</li> <li>Sample representivity is maintained by placing the samples in a pre-numbered calico bag with a corresponding sample number on an excel spreadsheet and for drill samples maintaining dry sampling and good drilling practice, avoiding sample over runs and contamination. Certified reference materials, and laboratory repeat samples are analysed routinely.</li> <li>RC 4m-Composite samples were collected using an aluminum scoop and combined to create a 2.5 to 3.0kg composite sample.</li> </ul>



Criteria	JORC Code explanation	Commentary
	circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	<ul> <li>The samples were submitted to Intertek Laboratory Perth, for drying, crushing, and pulverising to produce a 50g charge for fire assay of gold.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>RC drilling used an 4 ½ inch hammer.</li> <li>RC holes were collar surveyed with a compass and GPS</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Sample recoveries and wet samples were monitored and recorded qualitatively in Lodestar's drill hole database. Recoveries were generally 80 -100%.</li> <li>High pressure air used to maintain a dry sample and drill sampling equipment was cleaned regularly to minimise contamination.</li> <li>There is no apparent relationship between sample recovery and grade.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Logging is qualitative in nature.</li> <li>All RC holes are geologically logged every meter supporting a level of mineral exploration and potential future Mineral Resource estimation.</li> <li>A small sample of every meter is stored in a chip tray and photographed. All the chip trays are stored at Lodestar sheds either on site or in Perth.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No core samples taken.</li> <li>Composite 4m metre samples were collected from the sample pile using an aluminum scoop and combined to create a 2.5 to 3.0kg composite sample.</li> <li>Single split samples are collected into prenumbered calico bags directly from a splitter on the cyclone.</li> <li>All RC samples are stored in pre-numbered calico bags and submitted to Intertek, Perth, for sample preparation and analysis.</li> <li>Sample preparation for drill samples involves drying the whole sample, crushing to 3mm and pulverising to 90% passing -75 microns. The pulverised sample is split with a rotary sample divider to obtain a 50 gram charge.</li> <li>Certified reference standards (1:30) and laboratory repeats are used to monitor</li> </ul>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>satisfactory reproducibility and accuracy of sampling and assays.</li> <li>Fire Assay method was used for gold analysis.</li> <li>No geophysical tools were used to determine any element concentrations.</li> <li>Reference standards and blanks were inserted at 1:30 throughout the drill program for RC. Results indicate satisfactory accuracy and precision was achieved.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>There were no significant interceptions in the composite assays.</li> <li>Twinned holes were not drilled in this program.</li> <li>Field and laboratory data are collected electronically and entered into an excel spreadsheet which is then stored into a database.</li> <li>No adjustment to assay data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>A hand-held GPS has been used to locate the drillhole collars and the soil samples with estimated 3-5m accuracy.</li> <li>Drill hole coordinates were recorded in MGA94 Zone 50 grid for the Ned's Creek Project, and MGA94 Zone 51 grid for Earaheedy and Coolgardie West Project.</li> <li>The topography within prospect areas has been derived from GPS RL (2-10 m accuracy).</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>RC holes were completed at irregular distances.</li> <li>The current density of drilling is not sufficient for resource estimation.</li> <li>Sample compositing over 4m intervals throughout the drilling program with 1m split samples available for check assays where anomalous grades are reported.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>At Ned's Creek, the main geological stratigraphy is steeply dipping to the NNE with some variation within the geological sequence.</li> <li>At Ned's Creek, this current drilling is expected to be following the stratigraphy but not enough information is known yet to extrapolate the thickness of the intercepts.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sample security	• The measures taken to ensure sample security.	<ul> <li>All samples were stored at Lodestar's exploration camp in sealed bags under supervision prior to dispatch by Lodestar personal to the laboratory.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audit or reviews carried out.



### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	<ul> <li>The drilling at Ned's Creek was on E52/2456 which is 100% owned by Lodestar (through Audacious Resources Pty Ltd, Lodestar's wholly owned subsidiary company).</li> </ul>
	<ul> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Exploration commenced at McDonald Well in the late 1960's. WMC explored for Zambian Copper Belt style mineralisation and completed regional geological mapping and sampling, followed by minor percussion drilling. CRA Exploration completed regional mapping and auger sampling, also at McDonald Well. No significant anomalies were identified on the tenements. Minor exploration drilling by Barrick and CRA Exploration east and south of Contessa intersected ultramafic lithologies, confirming the extent of the greenstone sequence in this area. There has been no material exploration by other parties over the Contessa area before Lodestar minerals.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of the project area comprises the northern margin of the Proterozoic Yerrida Basin. The geology forms two discrete units; Proterozoic sediments of the Yerrida Basin that are prospective for sediment-hosted copper and base metal mineralisation in black shale and carbonate sequences, with evidence of secondary and primary copper mineralisation in the Thaduna district, overlie Archaean basement rocks on the northern margin of the Yerrida Basin. The basement-sediment contact trends east- west and Lodestar's exploration has identified extensive gold anomalism adjacent to this contact. The basement consists of granite and fringing mafic to intermediate and ultramafic rocks that have minimal outcrop. The mafic- ultramafic rocks and the adjacent granite that hosts gold mineralisation are thought to be Archaean in age. Identification of syenite-hosted, intrusion-related gold mineralisation at Brumby and Gidgee Flat indicates that this region differs from other



Criteria	JORC Code explanation	Commentary	
		lode gold occurrences in the Plutonic Well greenstone belt and the surrounding Proterozoic fold belt and does not form part of the adjacent Marymia Inlier.	
Drill hole information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	• See table in the main text.	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>There were no results &gt; 0.1g/t Au.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.         <ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul> </li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down</li> </ul>	<ul> <li>These two holes were drilled to target the magnetic anomalies and were drilled to intersect the anomalies at an interpreted perpendicular angle. At both locations the host rocks do not outcrop and therefore the dip and strike cannot be confirmed at this time. This is the first drill testing of these targets and therefore the true width of mineralisation is unknown.</li> </ul>	



Criteria	JORC Code explanation	Commentary
	hole length, true width not known').	
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>For illustration refer to Figures for interpreted geological drillhole cross section.</li> </ul>
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• There were no assays greater than 0.1g/t Au.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>All information has been reported within the text of the announcement, no other information to report.</li> </ul>
Further Work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Follow up RC drilling will be completed including scissor holes to test for different mineralisation orientations.</li> </ul>