

# Tenement Granted at Earaheedy and Ned's Creek Update

# HIGHLIGHTS

- E69/3532 Granted at Earaheedy
- Soil sampling started on E69/3532 in the areas with identified volcanic rocks
- RC drilling at the Ned's Creek Gold Project returned no significant results.

**Lodestar Managing Director Ed Turner commented**: *"We are happy that E69/3532 has finally be granted after a 7 year wait. This tenement includes some of the most prospective areas within our Earaheedy Project for base metal and gold mineralisation. We have immediately commenced first pass soil sampling over the north west part of the tenement where geological mapping by Lodestar has identified large areas of mafic and ultramafic rocks which have not previously been identified within the Proterozoic sedimentary package.* 

The RC drilling at Ned's Creek unfortunately did not return significant gold mineralisation despite intersecting extensive quartz veining and strong alteration and shearing in one of the scissor holes."

Lodestar Minerals Limited (**Lodestar** or **the Company**) (**ASX:LSR**) is pleased to report the grant of E69/3532 (Figure 1) on 16<sup>th</sup> October 2024 after a State Deed was signed by the Mungarlu Ngurrarankatja Rirraunkaja Aboriginal Corporation, Tarlka Matuwa Piarku Aboriginal Corporation and the State of Western Australia following a seven (7) years wait.

### **Earaheedy Project**

Tenement E69/3532 cover a large part of the prospective area of the Earaheedy Project. Geological mapping was completed over the last 2 years by Lodestar geological team over the area and large areas of mafic and ultramafic rocks were identified. The presence of volcanics rocks linked to large scale crustal faults drives the area to as a prospective zone for base metal and gold mineralisation.

A soil sampling program of 560 samples is planned to cover prospective areas in the NW of the tenement.

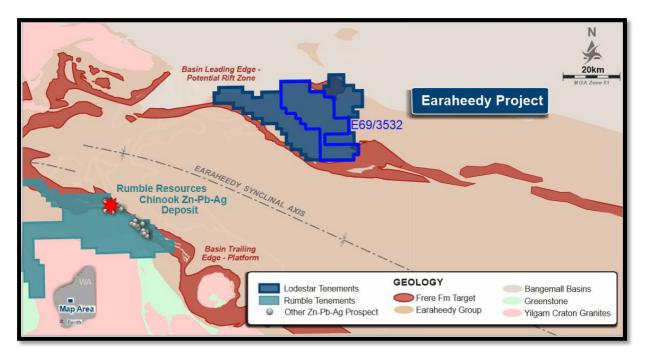


Figure 1: Location of E69/3532 in relation to the Earaheedy Project.

# **Ned's Creek Project**

At Ned's Creek, the results of the composite samples of phase 2 drilling comprising two additional RC holes (LNRC003 & LNRC004) (Table 1, Figure 2) for a total of 444m were received and presented no significant Au intersections.

Tenement ID	Hole ID	Dip	Azimuth	MGA_Grid	MGA_East	MGA_North	RL	EOH
E52/2456	LNRC001	-65	320	MGA94_Z50	786240	7190205	582	246
E52/2456	LNRC002	-60	310	MGA94_Z50	789120	7192815	570	264
E52/2456	LNRC003	-60	140	MGA94_Z50	786130	7190359	587	228
E52/2456	LNRC004	-60	140	MGA94_Z50	789001	7192994	574	216

Table 1: RC drill hole collar table

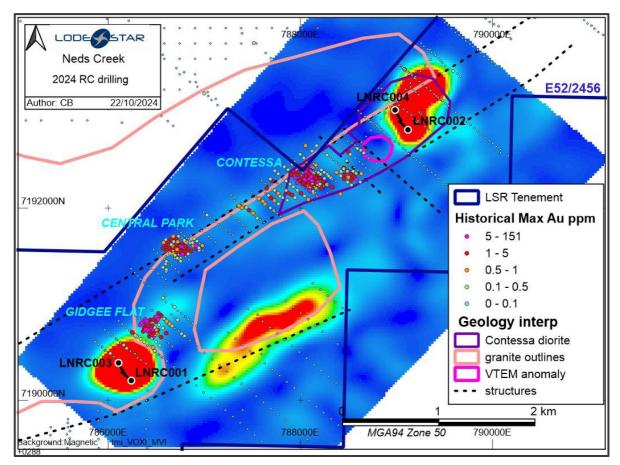


Figure 2: RC drill hole locations testing the two magnetic targets at Ned's Creek in relation to historical drilling displaying their max Au in ppm.

The last two phases of drilling included four RC holes (Figure 2) which were targeting two previously undrilled magnetic targets. LNRC004 did not intersect any Proterozoic sediments and was very different to LNRC002. It intersected dominant intervals of quartz veins and veinlets extending over 80m downhole as well as a highly deformed and silicified diorite unit. Mafic basalt also intersected was sheared and silicified. The units, veining and alteration intersected matched the geological target model, but no significant Au mineralisation was intersected. The geological interpretation will be reviewed to determine if quartz veining is part of the main mineralisation corridor or could be a later stage cross cutting fault.

#### 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 3).

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.

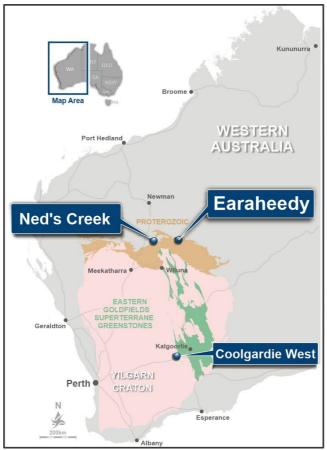


Figure 3: Lodestar's Project locations

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

#### -ENDS-

#### **Contacts**

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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 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.</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 prenumbered calico bag with a corresponding sample number on an excespreadsheet 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> <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>

Criteria	JORC Code explanation	Commentary
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/secondhalf 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 pre-numbered 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 satisfactory reproducibility and accuracy of sampling and assays.</li> </ul>
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>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 downhole 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</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</li> </ul>

Criteria	JOF	RC Code explanation	Со	mmentary
	•	applied. Whether sample compositing has been applied.		are reported.
Orientation of data in relation to geological structure	•	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	•	At Ned's Creek, the main geological stratigraphy is steeply dipping to the NNE with some variation within the geological sequence. 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.
Sample security	٠	The measures taken to ensure sample security.	•	All samples were stored at Lodestar's exploration camp in sealed bags under supervision prior to dispatch by Lodestar personal to the laboratory.
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	<ul> <li>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.</li> </ul>	<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.	<ul> <li>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 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.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>
<i>Relationship between mineralisation widths and intercept lengths</i>	<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 hole length, true width not known').</li> </ul>	• 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.
Diagrams	<ul> <li>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</li> </ul>	• For illustration refer to Figures for interpreted geological drillhole cross section.

Criteria	JORC Code explanation	Commentary
	sectional views.	
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.	• All information has been reported within the text of the announcement, no other information to report.
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>