

# **CONFIRMATION OF EXCEPTIONAL GOLD GRADES AT CONTESSA**

Highlights

- One metre re-sampling of drill hole LNRC026 (4m at 74g/t Au from 140m in a 4m composite sample) reports excellent grades.
- One metre split samples collected from the rig mounted cyclone splitter reported:
  - o 1m at 151g/t Au from 140m
  - o 1m at 128g/t Au from 141m
  - 1m at 28.5g/t Au from 142m
  - 1m at 4.6g/t Au from 143m
- Results demonstrate the potential for bonanza grades associated with the intrusionrelated style of mineralisation
- Excellent exploration upside remains, with 89% of the 16km granite contact perimeter untested by drilling and multiple gold targets on adjacent tenements
- Results from recently completed aircore drilling at Boundary Fence, Brumby, Central Park and Gidgee Flat awaited.

West Australian gold explorer Lodestar Minerals Limited ("Lodestar", or "the Company" **ASX:LSR**) advises that assay results for 1m split samples from Contessa RC drill hole LNRC026 (see Lodestar's ASX announcement dated 22<sup>nd</sup> May 2018) have been received. LNRC026 is one of 12 RC drill holes completed at the Contessa gold prospect in March-April 2018.

Contessa is located 35km east of Superior Gold's 5Moz Au Plutonic gold mine and 170km north of Meekatharra, on the Company's 100%-owned Ned's Creek project.

#### RESULTS

The high-grade assay result reported in a 4m composite sample taken from LNRC026 (see Figure 1) has been confirmed by follow up assays of the 1m split samples collected from the rig-mounted cyclone-splitter. Composite samples are collected as a first-pass sampling method when mineralisation is not anticipated, to minimise analytical costs. During the RC drilling program 1m split samples were collected routinely and the 1m samples are used in preference where mineralised intervals are recognised.

An average grade of 78g/t for the interval 140m to 144m correlates well with the 4m composite result of 74g/t Au. Similarly, the interval from 144m to 148m reported an average 1.33g/t Au against the original 4m composite sample assay of 0.9g/t Au.

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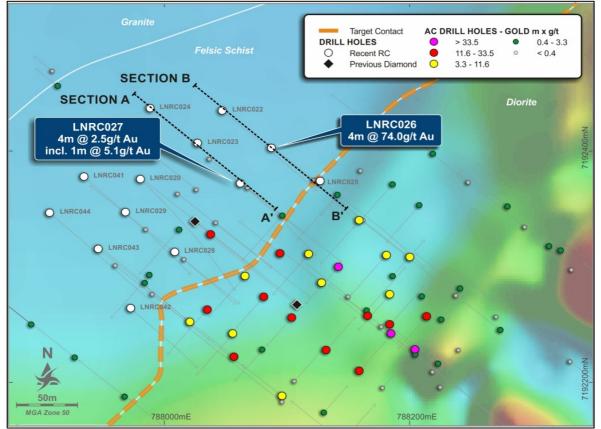


The 1m split samples from LNRC026 were assayed for the interval 138m to 160m. Significant results (>1g/t Au) are listed in Table 1.

Table 1 Significant assa	v results for 1m split sam	ples from LNRC026 (>1g/t Au).
Table I Jiginneant assa	y results for this split sam	

HoleID	Easting	Northing	RL	Total Depth	Drill Type	Dip	Azimuth	DepthFrom	DepthTo	Length	Au g/t
LNRC026	788087	7192403	573.9	173	RC	-60.4	133	140	141	1	151
								141	142	1	128
								142	143	1	28.5
								<i>143</i>	144	1	4.6
								144	145	1	2.6
								145	146	1	1.2
								146	147	1	1.0
								150	151	1	1.2

#### Figure 1 Plan view of Contessa drilling showing LNRC026 collar.





## CONCLUSION

The latest results demonstrate the potential of the Contessa area to host bonanza grades associated with the intrusion-related gold exploration model proposed for Ned's Creek.

At Contessa, mineralisation occurs adjacent to the granite contact within a large shear zone featuring intense silica alteration. The shear zone is estimated to be 100m to 250m wide and hosts stacked lenses of pyrite mineralisation that dip moderately to the northwest. The structural controls on gold-bearing pyrite mineralisation and localised high grade gold have not been identified from RC drilling and follow up diamond drilling is needed.

In addition to planned drilling at Contessa, supplementary work is underway to advance targeting methods:

- An IP geophysical survey completed at Contessa in 2016 is being reviewed to determine its effectiveness in detecting bedrock anomalies and whether all IP anomalies have been identified.
- Geochemical profiling of the host rocks will be carried out to determine the major rock types, element associations and alteration styles with the aim of identifying features diagnostic of mineralisation.

The Company is awaiting assay results from the recent aircore drilling program at Boundary Fence, Brumby, Central Park and Gidgee Flat designed to identify supergene and transition zone anomalies related to bedrock gold mineralisation. To fast track identification of bedrock targets at Gidgee Flat, where the geological setting of gold mineralisation along the granite contact is relatively wellconstrained, an IP geophysical survey has been planned over the granite contact and is expected to commence in the current quarter, subject to contractor availability.

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## **About Lodestar**

Lodestar Minerals is an active Western Australian gold explorer with a prospective tenement package spanning more than 2,000km<sup>2</sup> at the edge of the Pilbara and Yilgarn Cratons. Lodestar has three main projects – Ned's Creek, Camel Hills and Imbin – and is earning an 80% interest in Vango Mining's Yowereena gold project which is adjacent to Ned's Creek.

Lodestar's focus is Ned's Creek where it was first to identify the potential for syenite intrusion-related gold mineralisation within the Capricorn Orogen on the northern margin of the Yilgarn Craton and subsequently made greenfields gold discoveries at the Contessa and Gidgee Flat prospects. Contessa is one of many partly explored gold anomalies located within a large shear zone adjacent to the southern margin of a 6 kilometre long, elongate composite granite intrusion. The Yowereena gold project provides Lodestar with access to the unexplored northern margin of the Contessa granite and under explored prospective Archaean greenstone terrane within a region of major gold endowment and production.

### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Bill Clayton, 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 Clayton consents to the inclusion in this report of the matters based on the 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 announcement dated 22<sup>nd</sup> May 2018 "Outstanding Drill Results at Gidgee Flat and Contessa". 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

# Section 1 Sampling Techniques and Data

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 at 1m intervals throughout, with 4m composites also collected through weathered or less altered material. Samples collected from the cyclone were laid in plastic bags 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 book entry. Certified reference materials, field duplicates and laboratory repeat samples are analysed routinely.</li> <li>1m RC samples were collected as a 2.5kg split in calico bags attached to the on-board cone splitter. Composite 4m metre samples were collected by spearing down the side of the plastic bag using a PVC spear and combined to create a 2.5 to 3.0kg composite sample. The samples were submitted to a commercial laboratory for drying, crushing, and pulverising to produce a 40g charge for fire assay of gold and determination of sulphur by LECO furnace.</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 using a 5.5" face sampling hammer.</li> <li>RC holes were surveyed with a REFLEX EZ-GYRO north-seeking gyro survey tool.</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% and approximately 1% were reported as wet samples.</li> <li>High pressure air used to maintain a dry sample and drill sampling equipment was cleaned regularly to minimise contamination.</li> <li>No relationship between sample recovery and grade has been established.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>Chip samples were routinely geologically logged throughout the hole.</li> <li>Logging is qualitative in nature.</li> <li>All RC holes are geologically logged in full.</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>Individual 1m split samples collected from the cone splitter are submitted for assay. Most samples were dry. Selected intervals were composited from bagged 1m bulk samples to produce a 2.5kg 4m composite using a PVC spear. All samples for assay are stored in pre-numbered bags and submitted to Bureau Veritas Laboratories 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 was split with a rotary sample divider to obtain a 40 gram charge. Duplicate field samples (1:25), certified reference standards (1:20) and laboratory repeats are used to monitor satisfactory reproducibility.</li> <li>Sample size is appropriate for early exploration drilling where mineral grainsize is unknown.</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>Following sample preparation a 40 gram charge was submitted for fire assay (with ICP-AES finish); the detection limit is 1ppb. 1:20 duplicate samples retained for analysis after fine crushing. 1:20 pulverised samples analysed for satisfactory grind size. The fire assay method is considered an estimation of total gold content.</li> <li>No geophysical tools were used to determine any element concentrations.</li> <li>Laboratory QAQC includes the use of laboratory standards and replicates; Review of Lodestar's reference standards and field duplicates indicate acceptable accuracy and precision.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>Significant intersections have not been independently validated at this time.</li> <li>No twinned holes have been completed for Lodestar drilling.</li> <li>Field and laboratory data are collected electronically and entered into a relational database. Data collection protocols are recorded in Lodestar's operation manual.</li> <li>There has been 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>Drill hole locations are fixed by handheld GPS, accuracy is estimated to be +/-5 metres.</li> <li>Drill hole coordinates were recorded in MGA94 Zone 50 grid.</li> <li>The topography within prospect areas is generally flat; RL's are averaged from GPS readings of individual drill holes in each area and are subject to significant error. In the Contessa and Gidgee Flat areas drill hole collar RL's have been adjusted to the DEM surface derived from a detailed aeromagnetic survey using Bendix/King radar altimeter equipment with a resolution of 0.3m.</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> </ul>	<ul> <li>Drill holes at Contessa were placed at a nominal hole spacing of 50m (north-south) and 40m (east-west) and at Gidgee Flat 50m (north-south) and 30m (east-west).</li> <li>The drilling subject of this announcement has not been used to prepare Mineral Resource estimates at this stage.</li> </ul>
	Whether sample compositing has been applied.	• No compositing was been applied for the RC samples.
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 Contessa the target mineralisation is believed to dip towards the north based on limited diamond drilling and a marker graphitic shear.</li> <li>No orientation based sampling bias has been identified in the data.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Samples were stored at Lodestar's exploration camp in sealed bags under supervision prior to dispatch by Lodestar contractors and registered courier to Bureau Veritas - UltraTrace Laboratories.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been carried out.

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>Contessa is located on E52/2456, within Lodestar's Ned's Creek project. The tenement is owned by Audacious Resources, a wholly-owned subsidiary of Lodestar Minerals and expires on 16/09/2020. The tenement is within the native title claim WC99/46 of the Yugunga-Nya Group. Lodestar has signed a Heritage Agreement with the traditional owners to carry out mineral exploration on the tenement.</li> <li>Yowereena - Contessa may extend into M52/780. The tenements on which the historic exploration was completed and in which Lodestar is earning an 80% interest are held by Vango Mining Limited and Dampier (Plutonic) Pty Ltd (a wholly-owned subsidiary of Vango Mining Limited).         <ul> <li>M52/780 expires on 26/09/2034 (VANGO 60/100:DAMPIER 40/100).</li> </ul> </li> <li>Lodestar is earning an 80% interest in the tenements by spending \$357,000 before the anniversary of the farm-in agreement, in May 2018.</li> <li>M52/780 is located within the Yugunga Nya people native title claim WAD6132/1998.</li> </ul>
Exploration done 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.
	• Gold exploration in the Plutonic Well greenstone belt commenced in 1986. Marymia Exploration, in their 1994 report, declares that there had been little or no previous exploration within the Yowereena tenements.
Geology Drill hole information	<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 are not well exposed at surface. The mafic-ultramafic rocks and the adjacent granite that hosts gold mineralisation are thought to be Archaean in age but may be part of the Glenburgh orogenic event along the northern Yilgarn margin. 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> <li>Tabulated data is provided in Table 1.</li> </ul>
Data aggregation methods	<ul> <li>Assay data are reported as individual 1 metre results for RC samples.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>Drilling was oriented towards 130 degrees, perpendicular to the regional strike of stratigraphy. Measurement of foliation in the area indicates steep dips however mineralisation appears to dip shallowly to steeply to the north. The actual dip of mineralisation and its relationship to the drill hole intersections is not confirmed at this stage of exploration but is estimated to approximate true width at Contessa.</li> </ul>
Diagrams	• See Figure 1.

Balanced reporting	All relevant assay data is reported in Table 1.
Other substantive exploration data	None to report.
Further Work	<ul> <li>Contiguous supergene gold mineralisation was intersected by aircore drilling. RC drilling has confirmed and extended the mineralisation and demonstrated a spatial association with the granite contact. This contact is open along strike from the RC drilling and requires systematic drill testing. Diamond drilling and RC drilling will provide additional coverage between the current RC drill program and the granite contact.</li> </ul>