

29 April 2022

**Reverse Circulation Gold Intersections**  
**Killaloe gold project, Eastern Goldfields of Western Australia**

**HIGHLIGHTS**

- Reverse Circulation (“RC”) drilling program completed at Killaloe consisting of 8 drill holes for 962m
- Drill holes (3 RC holes for 362m) targeted multiple gold trends defined by the historic Buldania workings in tenement M63/177 and returned gold intersections including:
  - **6m at 3.74g/t** gold from 54m in drillhole LSK007
  - **9m at 1.38g/t** gold from 75m & **3m at 3.03g/t** gold from 90m in drillhole LSK008
- Drilling has intersected multiple mineralised zones defined by quartz veining, sulphide mineralisation and rare coarse gold noted in panned samples. Final 1m sampling to assist in definition of high-grade nuggety mineralisation
- Extensive historic working throughout the Buldania prospect define multiple trends to be reviewed in conjunction with historic exploration
- Drilling with tenement E63/1018 did not intersect anomalous gold mineralisation, however geological review indicates alteration and veining indicating further geological review required

Lachlan Star Limited (**ASX:LSA, Lachlan Star** or the **Company**) is pleased to provide an update on the Killaloe gold project in the Eastern Goldfields, with the receipt of the 3m composite sampling of the maiden drilling program.

Lachlan Star Director, Bernard Aylward said: *“Drilling at the Buldania workings has highlighted the vein hosted nuggety style of mineralisation similar to the 5 million ounce Norseman gold field located just 35km to the west. Geological logging of the drill holes has indicated sulphide mineralisation and coarse gold mineralisation in altered quartz veins. This first drill program completed by Lachlan Star tested across a section of the extensive historical working and highlights the potential for follow-up drilling to begin to define zones of high-grade gold shoots and demonstrate potential for increased economic significance. This program consisted of only three drill holes due to limited rig availability and further drilling will test along strike and target dip extensions of the defined zones.*

*“The drilling targeting the extension of the “Barrel” prospect within tenement E63/1018 intersected zones of alteration and associated low level multi-element anomalism and more work is required to evaluate this tenement. Review of historic work and geological reconnaissance continues to highlight the potential for nickel mineralisation as well as gold mineralisation where our field reconnaissance has demonstrated strike extensions of historic workings untested by previous work.”*

## Killaloe Gold Project

The Killaloe Project, located in southeast Western Australia approximately 600km east of Perth and 35km northeast of the historic gold mining town of Norseman, comprises two, largely contiguous exploration licences (E63/1018 and E63/1017) and the separate Buldania mining licence (M63/177) covering a total combined area of 94km<sup>2</sup> (refer **Figures 1 and 2**). There are no other land users and access is generally good although sometimes limited by thick bush and weather events.

Lachlan Star's maiden drilling program consisted of 8 RC drill holes for a total of 962m, made up of 3 drill holes for 362m within the Buldania workings with drill holes oriented to the south and dipping at 60 degrees to intersect the east-west striking mineralised zones (refer **Figure 3**). In tenement E63/1018, drilling targeted the extensions to the Barrel prospect and parallel targets with 5 drill holes for 600m drilling with holes oriented to the east and dipping 60 degrees to cross-cut the geological sequence. All holes have been sampled on an initial 3m composite basis and analysed for gold, PGE and multi-elements. Anomalous samples have been re-split to 1 metre intervals for further assay to confirm the potential for narrow high-grade gold mineralisation.

The drilling program was limited due to drill rig availability and further drilling will be planned when all results have been received and interpreted.

## Buldania Gold Workings

The Gold mineralisation at the Buldania prospect within tenement M63/117 is interpreted to be controlled by a series of parallel shear zones intruded by quartz veining and associated alteration. Historic gold workings that have exploited the gold mineralised trends and the geological strike approximate an east-west orientation, and historic drilling defined multiple parallel zones that require further testing. Following on from a rock-chip sampling program, the initial drilling program tested a section across the parallel trends to confirm geological and structural interpretation on mineralisation controls.

Significant intersections for the RC drill holes calculated using a 0.5g/t gold lower cut-off, maximum 3m internal dilution are tabled below<sup>1</sup>:

Hole Id	Northing	Easting	Hole Depth m	Azimuth	Dip	Depth From	Depth To	Width	Grade g/t
LSK006	6453387	409201	82	180	-60	54	57	3	1.08
LSK007	6453436	409208	140	180	-60	54	57	6	3.74
						66	69	3	1.65
LSK008	6453482	409200	140	180	-60	36	39	3	2.31
						75	78	9	1.38
						90	93	3	3.03
						114	117	3	2.28

**Notes:** Drill holes are RC drill holes. Drill holes have been sampled on a 1m basis with samples collected via a cone split system with samples for analysis consisting of 3m composite samples. Drill hole collars are surveyed using a hand-held GPS with sub 5-metre accuracy, coordinate system GDA – Zone 51S, and all holes are survey down-hole for dip and azimuth on approximately 30m intervals. All drill holes are geologically logged and recorded in database. Samples analysed by Intertek-Genalysis Laboratories for gold and PGE's by 50g Fire Assay and multi-element analysis by mixed acid digest and ICP-MS and ICP-OES finish. Intersections are reported as g/t gold (ppm) Intersections are reported using a 0.5g/t gold lower-cut-off, and allowing for a maximum of 3m (1 composite sample) internal dilution.

The initial composite sample results and the geology identified in the drill hole logging has confirmed the potential for multiple mineralised trends and for these target zones to host high-grade nuggety gold mineralisation. The next phase of exploration drilling at this prospect will consist of deeper drilling to define high-grade gold mineralised shoots similar to the high grade quart reefs within the Norseman region.

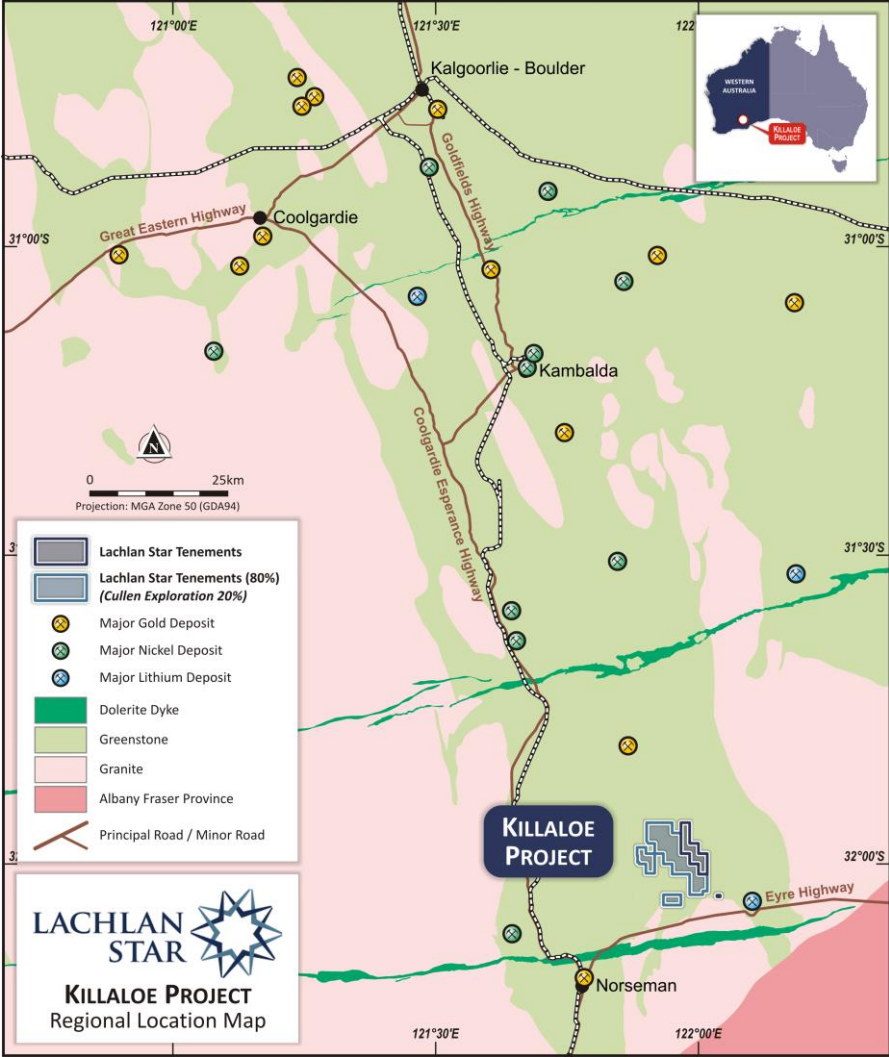
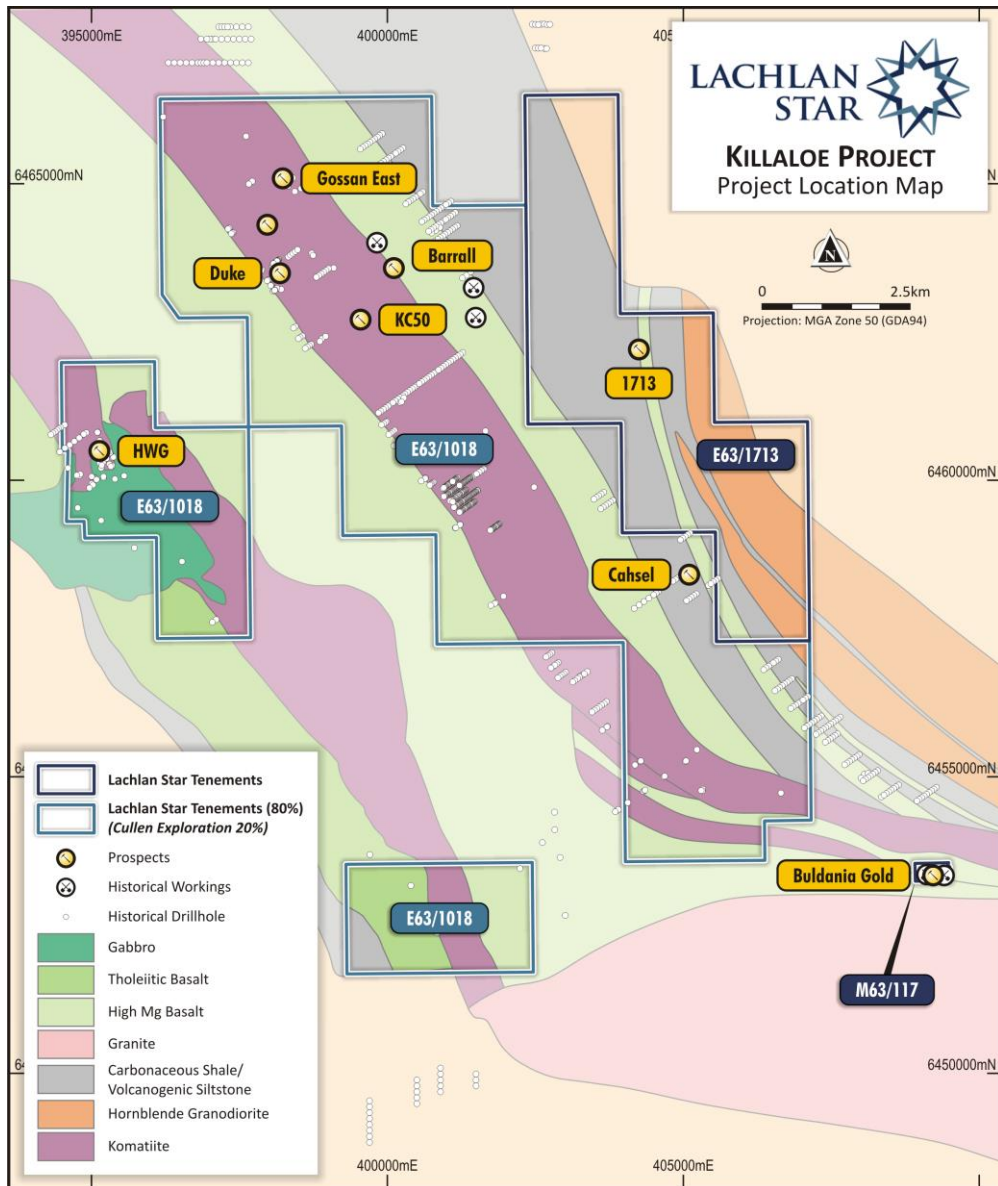
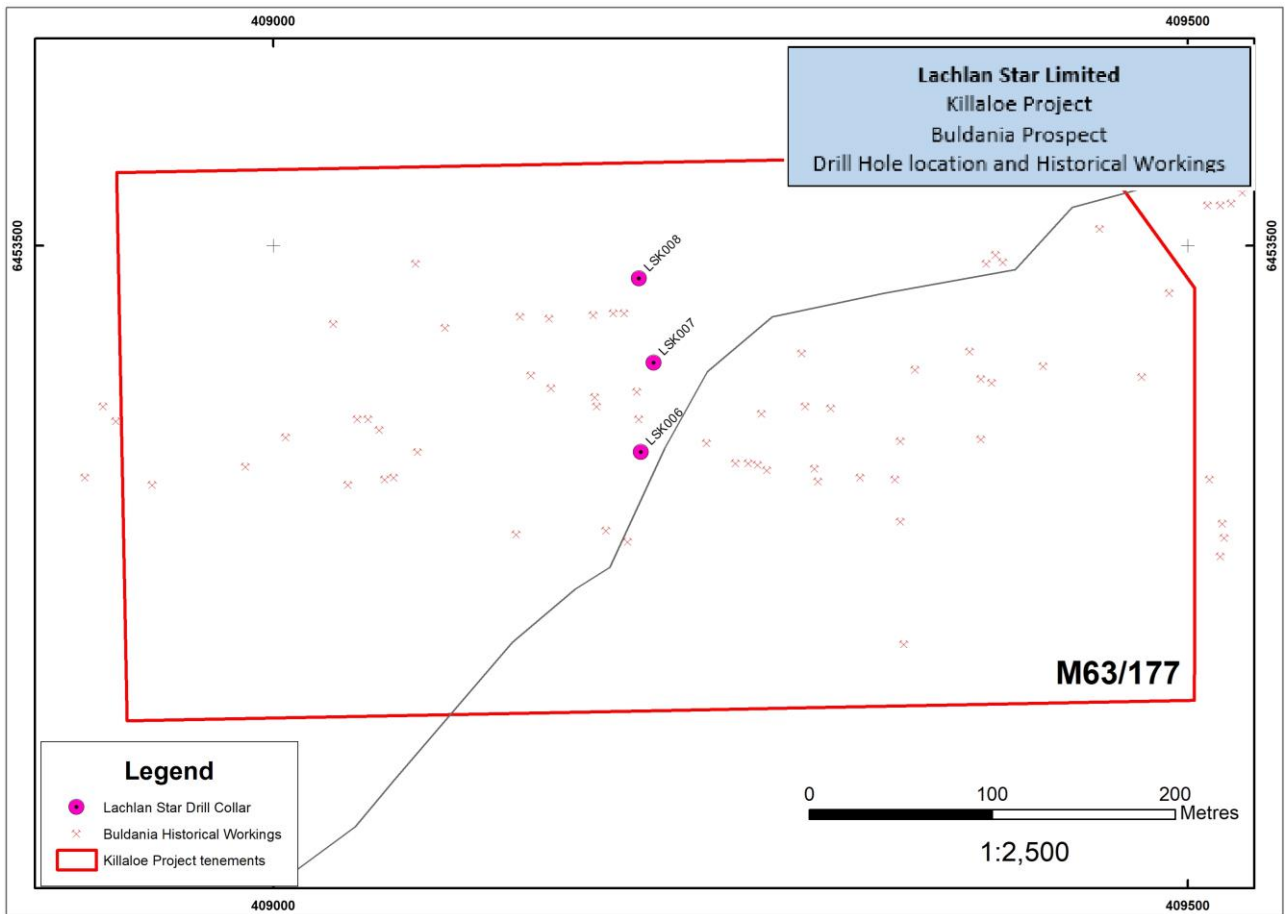


Figure 1: Killaloe Gold Project Location



**Figure 2: Killaloe Gold Project – geology and prospect location**



**Figure 3: Killaloe Gold Project – Buldania prospect Historical workings and drilling 2021**

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This announcement was approved by the Board of Lachlan Star Limited.

**Competent Person’s Statement – Exploration Results**

*The information in this report that relates to exploration results for the Killaloe Project is based on, and fairly represents information and supporting documentation prepared by Mr Bernard Aylward, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Aylward is a Director of Lachlan Star Limited. Mr Aylward 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 Reporting of Exploration Results, Mineral Resource and Ore Reserves”. Mr Aylward consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

<sup>1</sup>RC holes LSK001 to LSK005 contained no significant intersections within the 3m composite samples taken and are therefore not reported here.

## **Forward Looking Statements and Important Notice**

*This report contains forecasts, projections and forward-looking information. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions it can give no assurance that these will be achieved. Expectations and estimates and projections and information provided by the Company are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are out of Lachlan Star's control.*

*Actual results and developments will almost certainly differ materially from those expressed or implied. Lachlan Star has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this announcement. To the maximum extent permitted by applicable laws, Lachlan makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission from, any information, statement or opinion contained in this report and without prejudice, to the generality of the foregoing, the achievement or accuracy of any forecasts, projections or other forward looking information contained or referred to in this report.*

*Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.*

## Appendix 1 – Koojan Joint Venture– JORC Code 2012 Table 1 Criteria

The table below summarises the assessment and reporting criteria used for the Moora Project and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>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.</i>	Reverse Circulation (“RC”) drill samples reported with drilling and sampling undertaken to industry standards
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	RC drilling was used to obtain 1 m samples. Initial samples are composited from equal amounts from 3 individual 1m samples to form a 3m composite of approximately 3kg for submission for assay.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	Assay method is 50g Fire Assay for gold and PGEs and a mixed assay digest for multi-element analysis
	<i>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.</i>	
<b>Drilling techniques</b>	<i>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).</i>	RC drilling reported.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Samples recovered via from cone splitter.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	RC drilling sampling procedures and drilling techniques to maximise recovery.
	<i>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.</i>	No sampling bias noted
<b>Logging</b>	<i>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.</i>	All drill holes geologically logged on a 1m basis with drill chips collected in 1m intervals.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	
	<i>The total length and percentage of the relevant intersections logged.</i>	
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Drill intervals collected at 1m intervals. 3m composite sampling collected by compositing of 3 individual metres into 1 sample of approximately 3kg of equal amount from each RC interval
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or</i>	

	dry.	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	
	<i>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.</i>	
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	QAQC undertake for sampling. Duplicate samples collected 1m samples collected of anomalous 3m composite samples collected for detailed assessment.
	<i>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.</i>	Not used for reporting
	<i>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</i>	
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Intersections reviewed and compared to geological logging and historical exploration
	<i>The use of twinned holes.</i>	No twinned holesdrilling
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All collar, survey, sampling and geological logging is recorded in a digital database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments undertaken
<b>Location of data points</b>	<i>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.</i>	Drill hole collars surveyed by hand-held GPS to expected sub 5m accuracy Historical workings surveyed by hand held GPS to expected sub 5m accuracy
	<i>Specification of the grid system used</i>	GDA Zone 51 grid
	<i>Quality and adequacy of topographic control.</i>	
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Drill holes on a wide spacing of
	<i>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.</i>	Maiden drilling program completed and follow-up and definition drilling require follow-up prior to MRE preparation.
	<i>Whether sample compositing has been applied.</i>	Initial samples are 3m composite samples. None undertaken.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Drill holes oriented perpendicular to geological trend
	<i>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</i>	



	<i>assessed and reported if material.</i>	
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Samples collected by LSA contractors and transported directly to laboratory for analysis
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audit or review completed

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>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.</i>	<p>The Killaloe Project is located ~600km east of Perth and 20-30km ENE of Norseman in Western Australia. The Project area totals ~94km<sup>2</sup> and comprises 2 granted exploration licences (EL 63/1018 and 1713) and 1 granted mining lease (M63/177).</p> <p>EL 63/1018 is subject to an agreement between Lachlan Star Limited and Cullen Exploration Pty Ltd, with Cullen owning 20% of this tenement. All other tenements are 100%-owned by Lachlan Star.</p> <p>There is a 1% NSR for all minerals produced by Lachlan Star payable to Liontown Resources Limited.</p> <p>The Tenements are covered by the Ngadju Determined Native Title Claim (WCD2014/004). Lachlan Star has an Access Agreement with the Ngadju.</p>
	<i>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.</i>	All tenements are in good standing.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Prior to Lachlan Star acquiring the Killaloe Project, multiple phases of exploration were completed for gold and nickel. Target definition comprised geological, geochemical and geophysical surveys followed by various drilling programs using assorted techniques.</p> <p>The most recent activity by Liontown primarily focussed on lithium – no drill targets were defined.</p> <p>Subsequent auger sampling by Liontown across unexplored areas of the Project has defined a number of gold anomalies which have not yet been assessed by drilling.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Killaloe Project is underlain by a NW/SE trending sequence of Archaean greenstones interpreted to be situated between regionally significant structures, the Zuleika Shear and the Lefroy Fault, which are thought to control the location of major gold deposits to the north. The Zuleika Shear intersects the western part of the project area while the Lefroy Fault is located approximately 10km to the east.</p> <p>Locally the Project is largely underlain by basaltic and ultramafic units with the latter being clearly distinguished by a high magnetic response.</p> <p>Carbonaceous shale, volcanogenic sediments and a hornblende granodiorite comprise the bedrock geology in the eastern part of the Project.</p> <p>Within ML63/177, high grade gold (&gt;5g/t) is hosted by multiple (5-6), narrow (0.5-1.5m), E/W trending, cherty mylonite zones within broader (~10m), lower grade (&gt;0.5g/t) haloes. Mineralisation is hosted by a weakly oxidised, E/W trending, steeply dipping mafic sequence.</p>

<b>Drillhole Information</b>	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drillhole collar</li> <li>• elevation or RL (elevation above sea level in metres) of the drillhole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	Information relating to the drilling programme is provided in the body of the announcement
<b>Data aggregation methods</b>	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</p>	Drill hole intersections are reported with a 0.5g/t lower cut-off and a maximum 3m (1composite) internal dilution. No high-grade cut-off applied
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>	Intersections are reported as downhole width. No knowledge of true width is currently available.
<b>Diagrams</b>	<p>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.</p>	Appropriate figures are presented in the announcement
<b>Balanced reporting</b>	<p>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.</p>	Mineralised intersections tabled and reported. All drill holes discussed
<b>Other substantive exploration data</b>	<p>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.</p>	All meaningful and material data reported
<b>Further work</b>	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p>	<ul style="list-style-type: none"> <li>• Follow-up 1m sampling of mineralized zones</li> <li>• Review of mineralized trends within M63/177 and potential for economic review</li> <li>• Potential ground geophysical survey</li> <li>• Follow-up drilling program.</li> </ul>