



Strong PGE* and gold anomalism confirmed at the Koojan JV Project, WA

Assays from first-pass geochemical sampling highlight the exploration potential of the JV area, which is located immediately adjacent to Liontown's 100%-owned Moora Project

HIGHLIGHTS

- First-pass geochemical sampling completed in Q2 2021 identified a number of PGE and gold anomalies, including:
 - The Mallory PGE-Gold target, where anomalous PGEs (up to 160ppb/0.16g/t), gold (up to 12ppb), copper (up to 270ppm) and nickel (up to 242ppm) were defined over 1.4km strike; and
 - The Bourbana Gold Anomaly, where gold values of up to 86ppb were defined over a 1.4 x 2.4km area.
- In-fill and further first-pass sampling has confirmed and extended the existing anomalies and defined a number of new priority target areas.
- At Mallory, PGE and gold anomalism has been extended over a strike length of 2km strike – a 600m increase.
- At Bourbana, the gold anomaly has now been defined over a 2 x 2.4km area with gold values up to 135ppb.
- The latest results will optimize planning of ground geophysical surveys including Electro Magnetics (EM) and Induced Polarization (IP) designed to define targets for follow-up drill testing.
- The Koojan JV Project abuts the western boundary of Liontown's 100%-owned Moora Project, where initial Reverse Circulation (RC) drilling has intersected up to 43m @ 1.7g/t Au[#] at the Angepena prospect.
- Liontown's exploration footprint in the emerging Julimar mineral province comprises a largely contiguous 1,067km² area including the Koojan JV (600km²), where the Company can earn up to 51% interest, and the 100%-owned Moora Project (467km²).
- The Koojan JV and Moora Projects are currently planned to be included in a demerger of Liontown's non-lithium assets with the new company proposed to be listed later this year.

*PGE: Platinum Group Elements - palladium + platinum

[#] See ASX release dated 13th April 2021

Liontown Resources Limited (**ASX: LTR**, “Liontown” or “Company”) is pleased to report further encouraging results from recent geochemical sampling at the **Koojan JV Project**, located ~150km north-northeast of Perth in Western Australia (**Figure 1**). Liontown has entered into an agreement with Lachlan Star Limited (**ASX: LSA**) giving it the right to earn a 51% interest in the Koojan Project (refer ASX Announcement on 27 January 2021).

There had been no systematic exploration of the area prior to Liontown commencing its work program.

Since commencing work on the Koojan JV Project in early 2021, Liontown has completed two phases of geochemical sampling comprising:

- An initial phase of first-pass sampling totaling 2,214 samples; and
- A second phase of in-fill and extensional sampling totaling 1,649 samples.

The samples were largely collected using shallow (<1m) auger sampling techniques with soils collected in less accessible areas. First-pass sample spacing varied from 200 x 50m up to 400 x 400m, with in-fill samples collected on 50 x 50m and 100 x 100m grids.

Further to the announcement of 6 May 2021, assays have now been received for all samples with several new anomalies being defined (**Figure 2**) and the previously defined Mallory and Bourbana targets enhanced and expanded.

The **Mallory PGE-gold anomaly** has now been defined over a strike length of 2km with PGE values >100ppb (0.1g/t) recorded coincident with a strongly anomalous, NNW/SSE trending, coherent gold trend (**Figures 3A and 3B**). Government geological mapping indicates that the underlying bedrock geology comprises poorly exposed mafic, metasedimentary and gneissic rock units.

The **Bourbana gold anomaly** is an irregular shaped feature with multiple plus 50ppb Au peaks (**Figure 4**). The bedrock geology is obscured by shallow lateritic cover; however, the anomaly is coincident with linear magnetic highs, suggestive of the presence of iron-rich mafic units.

Four other geochemically anomalous areas have also been defined (**Figure 2**) which warrant further investigation.

Follow-up geophysical programs including ground EM, IP and detailed aeromagnetics designed to define bedrock targets for drill testing will now be planned pending confirmation of the Koojan JV Project being part of the demerged entity proposed to be listed on the ASX.

As previously foreshadowed, the Company is continuing to work through a process to demerge both its interest in the Koojan JV Project and also its 100%-owned Moora Project. Good progress is being made on the demerger and the Company expects to be able to update the market shortly on this progress.

This announcement has been authorised for release by the Board.

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Competent Person Statement

The Information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company. Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Richards consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statement

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

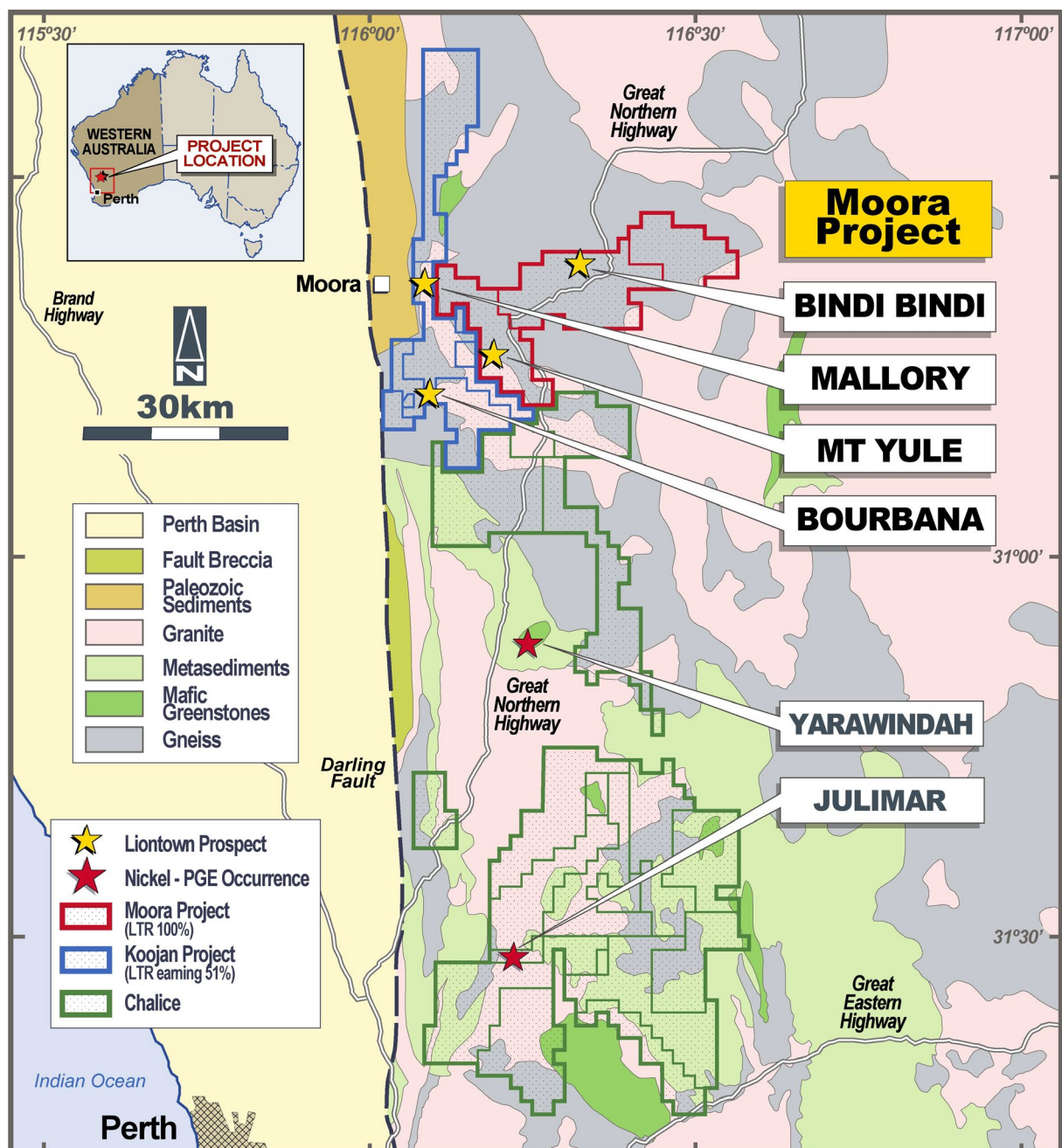


Figure 1: Moora and Koojan JV Projects: Location plan and regional geology.

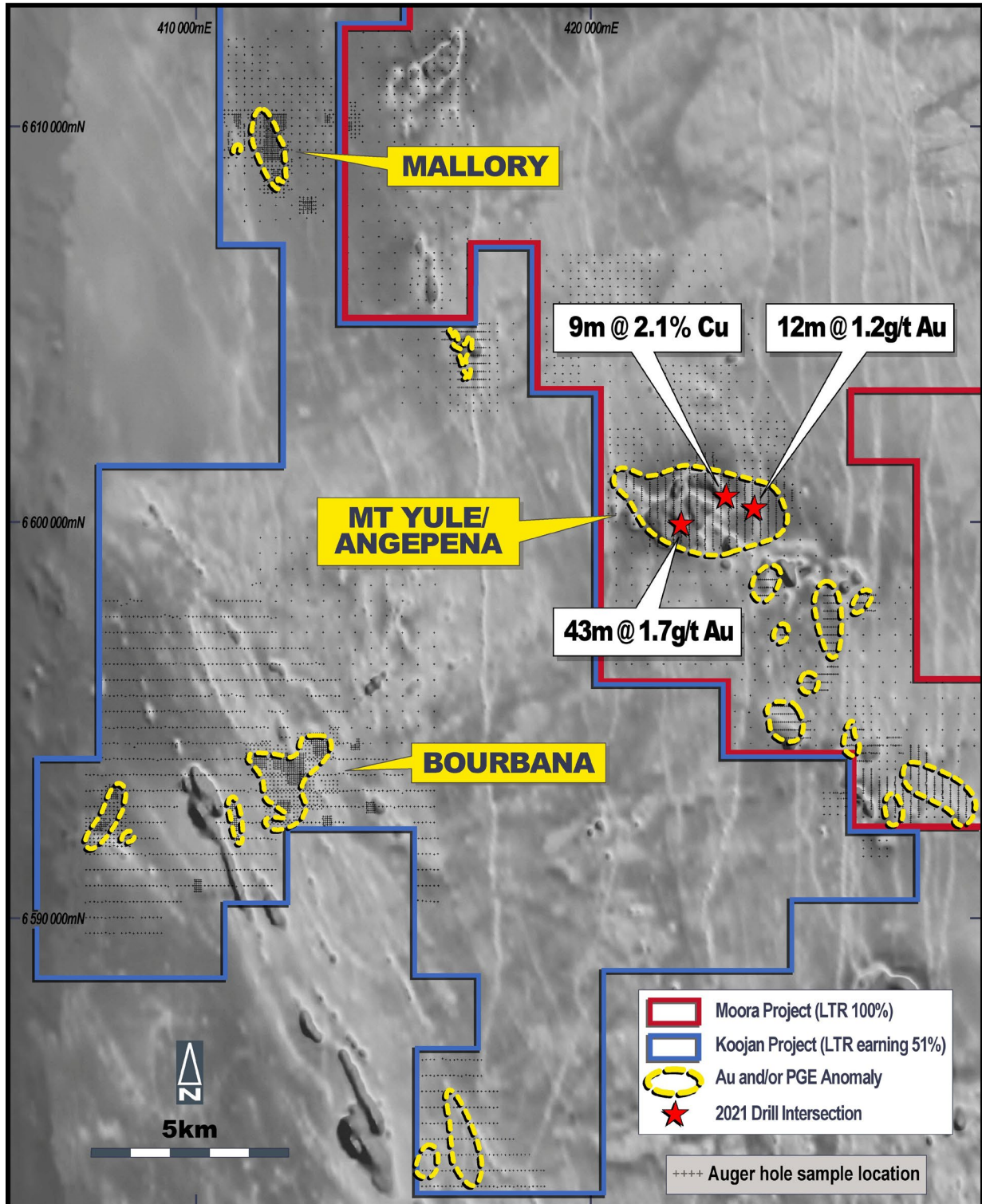


Figure 2: Koojan JV and Moora Projects: Aeromagnetic image (grey scale) showing geochemical anomalies and better drill intersections.

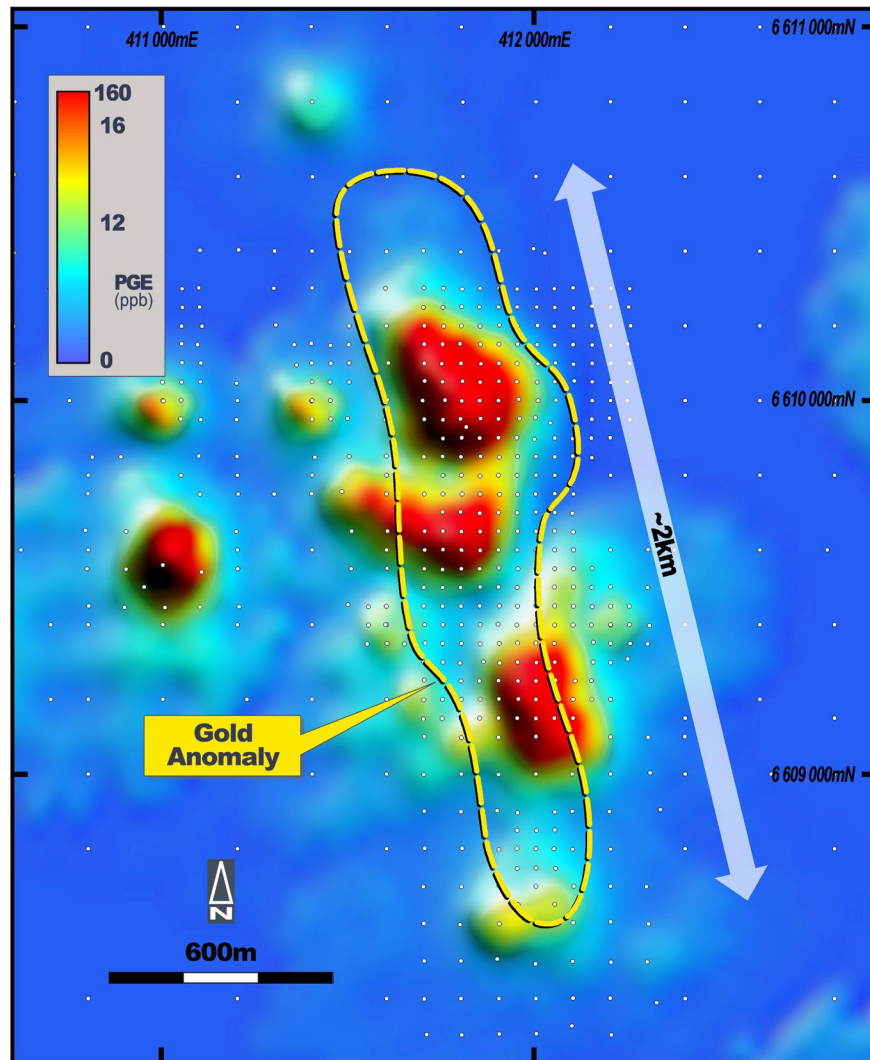


Figure 3A: Koojan JV Project: Mallory Prospect – Image of PGE (Pd+Pt) auger (white dots) geochemistry (gold anomaly delineated is as per Figure 3B)

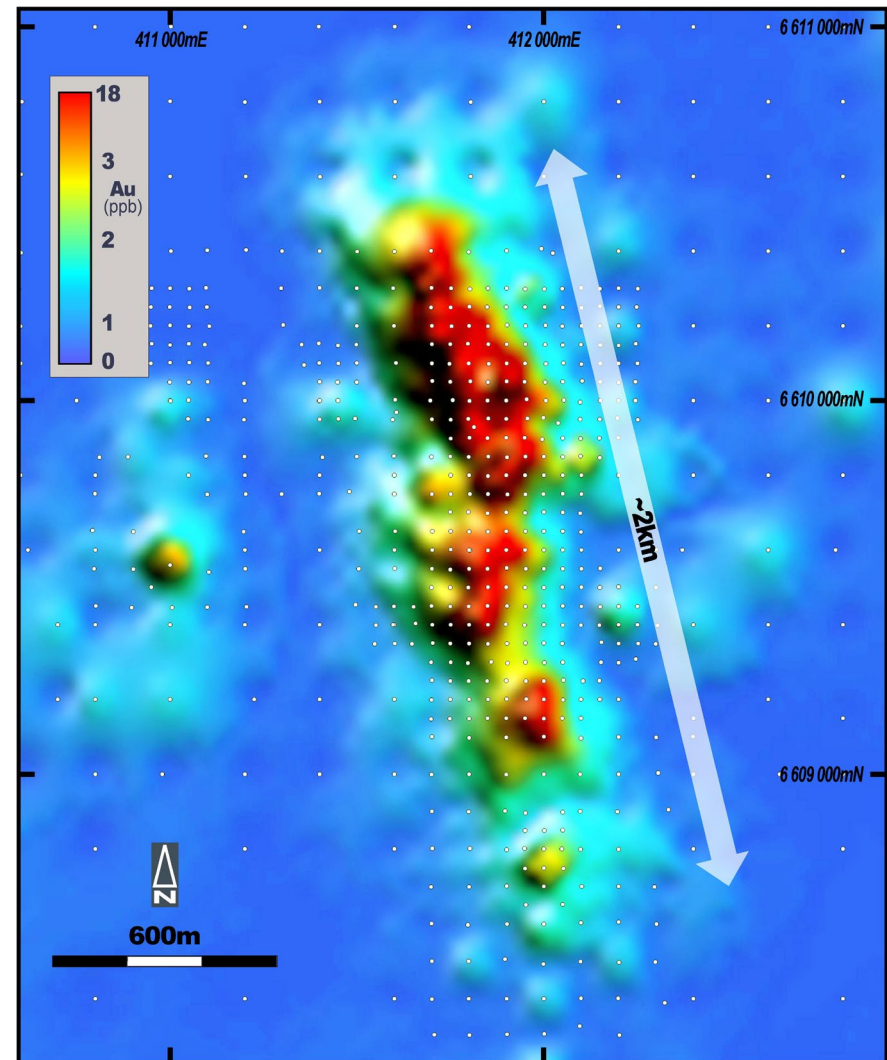


Figure 3B: Koojan JV Project: Mallory Prospect – Image of gold auger (white dots) geochemistry

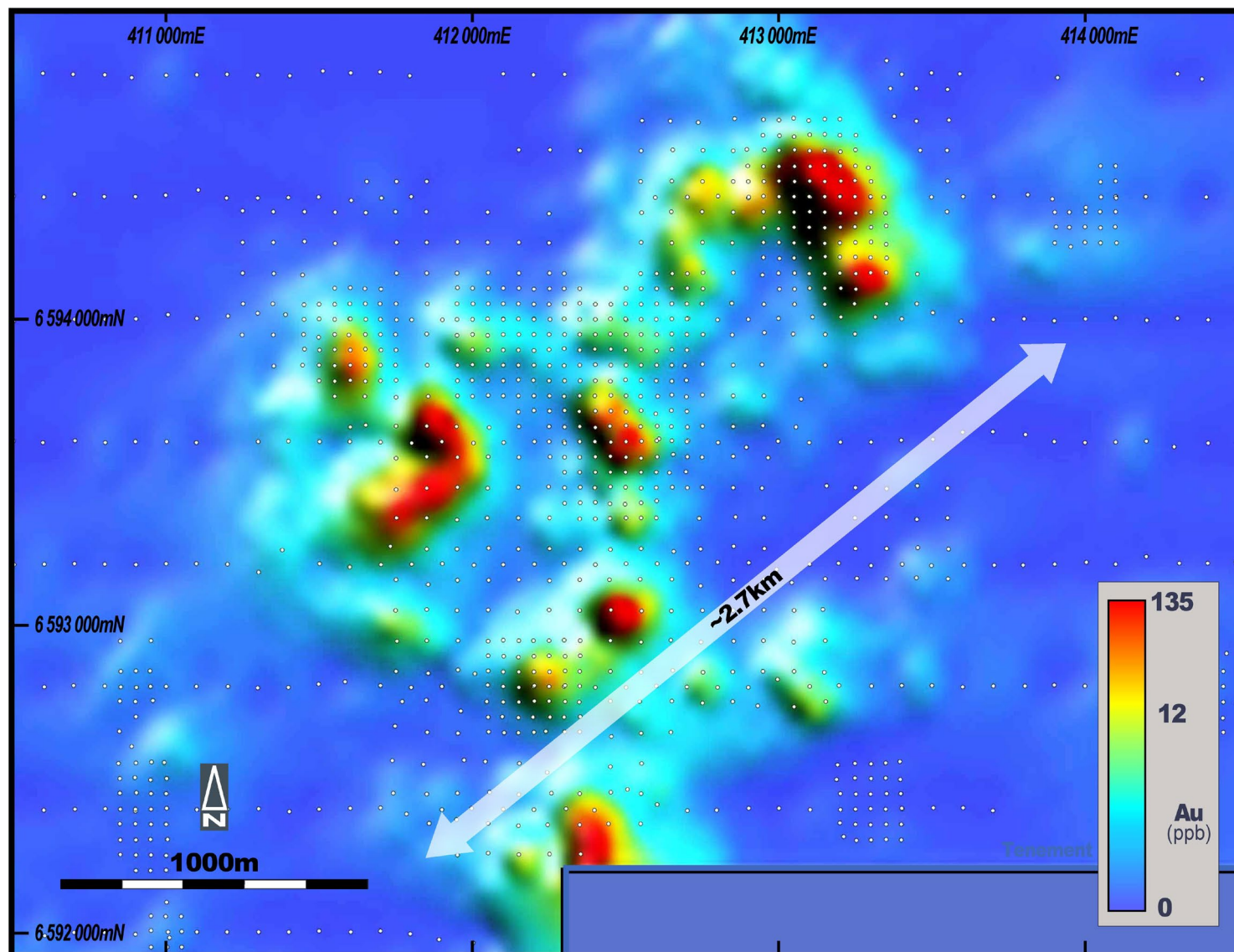


Figure 4: Koojan JV Project: Bourbana Prospect – Image of gold auger geochemistry

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

The table below summarises the assessment and reporting criteria used for the Koojan JV 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
Sampling techniques	<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>	No drilling completed by Liontown. Liontown auger samples collected from 0.2 -1m depth with 200-500g, -2mm material collected for assay.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <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>	Entire sample is submitted for sample prep and assay.
Drilling techniques	<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>	No drilling completed by Liontown.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No drilling completed by Liontown.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No drilling completed by Liontown.
	<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 drilling completed by Liontown.
Logging	<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>	No drilling completed by Liontown.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	No drilling completed by Liontown.
	<i>The total length and percentage of the relevant intersections logged.</i>	See above.
Sub-sampling techniques and	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core drilling completed.

Criteria	JORC Code explanation	Commentary
sample preparation	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No drilling completed by Liontown.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation of Liontown samples follows industry best practice standards and is conducted by internationally recognised laboratories; i.e. Oven drying, jaw crushing and pulverising so that 85% passes -75microns.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Duplicates and blanks inserted approximately every 20 samples. Review of lab standards
	<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>	Auger sampling completed on regular grid spacings, varying from 50x50m up to 400x400m, to ensure representative sampling of area being assessed. Entire sample submitted for assay.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample size (200-500g) accepted as general industry standard.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Assay and laboratory procedures have been selected following a review of techniques provided by internationally certified laboratories. Liontown samples are submitted for multi-element analyses by Bureau Veritas aqua-regia techniques following mixed-acid digest. The assay techniques used are total.
	<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>	None used
	<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>	Regular insertion of blanks and duplicates every 20 samples. Lab standards checked for accuracy and precision.
	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	None undertaken
Verification of sampling and assaying	<i>The use of twinned holes.</i>	None drilled.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All field data is manually collected, entered into excel spreadsheets, validated and loaded into an Access database. Electronic data is stored on the Perth server. Data is exported from Access for processing by a number of different software packages. All electronic data is routinely backed up. No hard copy data is retained.
	<i>Discuss any adjustment to assay data.</i>	None required
	<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>	All samples collected are located using a handheld GPS.
Location of data points	<i>Specification of the grid system used</i>	The grid system used is GDA94 Zone 50
	<i>Quality and adequacy of topographic control.</i>	Nominal RLs based on regional topographic datasets are used initially; however, these will be updated if DGPS coordinates are collected.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	First pass sampling collected on 200x50m, 200x200m, 400x100m and 400x400m grid spacing with density of sampling dependent on perceived prospectivity. Infill sampling completed on 50x50m and 100x100m patterns.
	<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>	MRE not being prepared.
	<i>Whether sample compositing has been applied.</i>	None undertaken.
Orientation of data in relation to geological structure	<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>	Not known at this early stage of exploration.
	<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 assessed and reported if material.</i>	None observed.
Sample security	<i>The measures taken to ensure sample security.</i>	Senior company personnel supervise all sampling and transport to assay laboratory in Perth.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	None completed.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<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 Koojan Project area totals ~600km² and comprises six granted Exploration Licences (ELs 70/5312, 70/5337, 70/5429 70/5450, 70/5515 and 70/5516) and one application for a Prospecting Licence (PL 70/1743).</p> <p>All tenements are 100%-owned by Coobaloo Minerals Pty Ltd, which is owned 50% by Lachlan Star Limited (ASX: LSA) and 50% by private group Wavetime Nominees Pty Ltd.</p> <p>Lachlan Star will increase its equity in Coobaloo to 75% by spending \$350,000 on exploration.</p> <p>Liontown through its wholly-owned subsidiary, ERL (Aust) Pty Ltd, has the right to earn 30% equity in the Project by spending \$1,500,000 on in-ground exploration over 5 years and up to 51% equity if it spends \$4,000,000 within the same period. Liontown must spend \$500,000 before having the right to withdraw from the JV.</p> <p>Liontown will manage exploration during the earn-in phase after which a JV committee will be established to operate the Project.</p> <p>Wavetime will be 25% free-carried until completion of a BFS after which it will have the right to contribute pro-rata or convert to a 2% NSR.</p> <p>The Koojan Project is largely underlain by freehold properties used for broad acre cropping and livestock rearing. Access agreements have been executed with relevant land owners.</p> <p>Coobaloo has signed a Heritage Agreement with the South West Aboriginal Land and Sea Council Aboriginal Council who act on behalf of the Yued</p>

Criteria	JORC Code explanation	Commentary
		Agreement Group.
	<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.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>No effective exploration prior to Lachlan Star acquiring its equity in Coobaloo Minerals.</p> <p>Lachlan Star has completed geological mapping, reconnaissance sampling and an aerial electromagnetic survey which have confirmed the presence of prospective mafic/ultramafic rock types.</p>
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Koojan Project area is located within the >3Ga age Western Gneiss Terrain of the Archaean Yilgarn Craton of southwest Western Australia.</p> <p>The prospective mafic/ultramafic bodies lie within the highly deformed Jimperding Metamorphic Belt which locally comprises high grade metamorphic rocks of quartz feldspar composition with some amphibolite schist and minor banded iron formation. The Belt is up to 70 kilometres wide and bounded to the west by the Darling Fault (and Perth Basin) and to the east by younger Archaean rocks. Regionally the geological trend is north-westerly with moderate to steep north-easterly dips.</p> <p>NNE and NNW trending, Proterozoic dolerite dykes also intrude the geological sequence.</p> <p>Outcrops are rare and bedrock geology is largely obscured by lateritic duricrust and saprolitic weathering. The clearing of farm land and related agricultural practices have further contributed to the masking of the bedrock.</p> <p>Liontown is exploring for mafic/ultramafic, intrusion-hosted, PGE-Ni-Cu-Au mineralisation similar to that recently discovered at Julimar 80 -90 km to the south.</p>
Drill hole Information	<p><i>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:</i></p> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> 	No drilling completed.
Data aggregation methods	<p><i>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.</i></p>	No intersections reported
	<i>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.</i>	No intersections reported
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values reported

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	No drilling completed.
Diagrams	<p><i>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.</i></p>	See Figures in body of report
Balanced reporting	<p><i>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.</i></p>	No results reported.
Other substantive exploration data	<p><i>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.</i></p>	All meaningful and material data reported
Further work	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p>	<ul style="list-style-type: none"> • Design and planning of ground and airborne geophysical surveys. • Geological mapping.