

## EIS Diamond drilling confirms Broken Hill Type Lead-Zinc prospectivity at Browns Prospect, Lyons River Project

### Highlights

- EIS diamond drilling program testing the lead-zinc-silver (Pb-Zn-Ag) target at Browns Prospect, returns encouraging base metal assay results up to 1.1% Zn.
- Drilling confirms Broken Hill Type host rocks with significant intervals of sulphides throughout the sequence within argillaceous metasediments and zones of silica-pyrite alteration.
- The diamond drill program at Browns was partly funded by the Exploration Incentive Scheme grant awarded to Dalaroo by the Government of Western Australia

Dalaroo Metals Ltd (ASX: DAL, "Dalaroo" or "Company") is pleased to announce that its recently completed diamond drilling program at its Browns prospect, Lyons River Project has intersected a Broken Hill Type mineralised sequence with encouraging assay results of up to 1.1% Zn. (Figure 1).

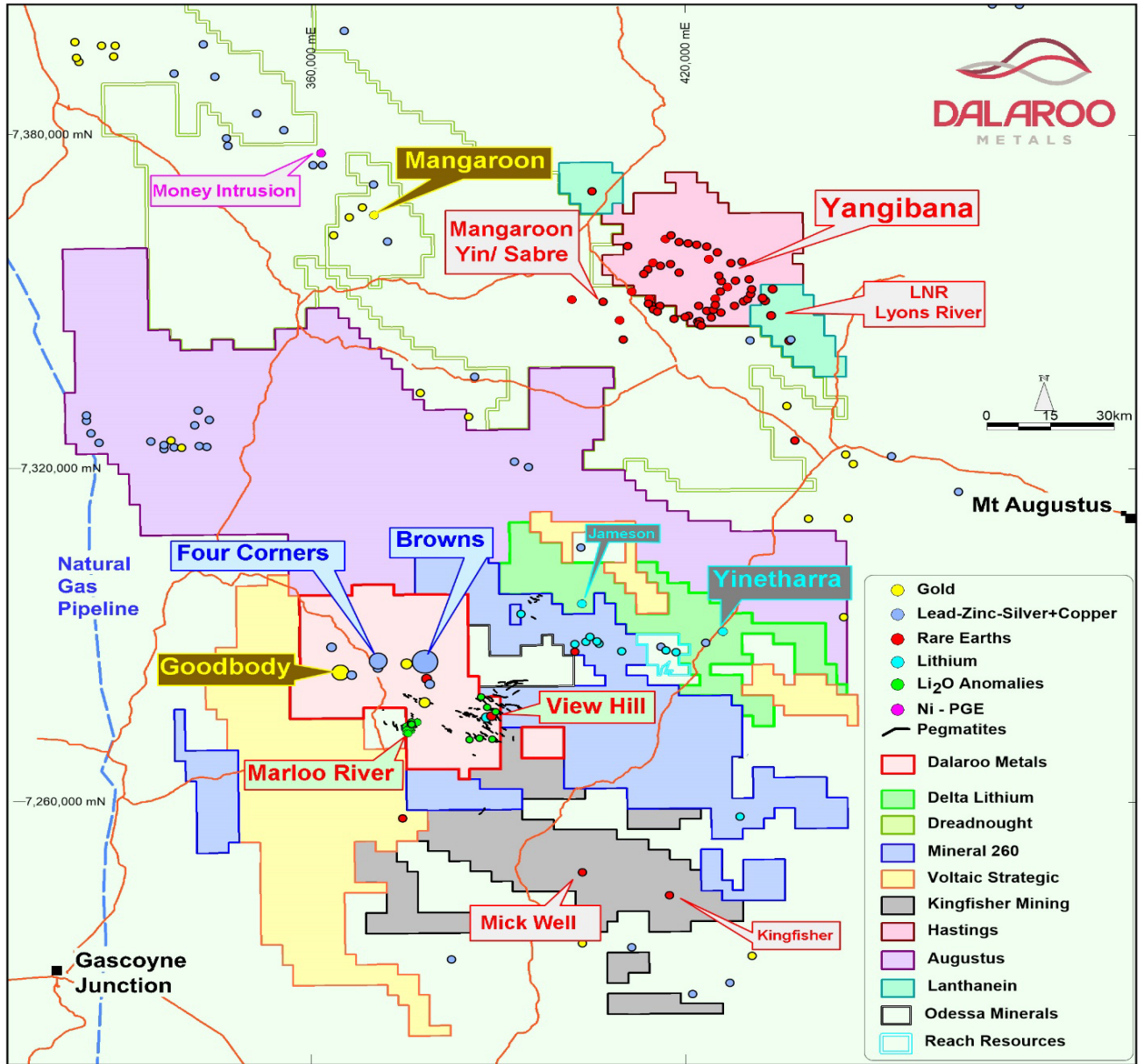
Four deep diamond core holes totalling 994.4 m have tested a prospective Pb-Zn-Ag base metal target covering an area of 6km<sup>2</sup> (3km X 2km).

The diamond drill program was partly funded by the Department of Energy, Mines, Industry Regulations and Safety ("DMIRS") Exploration Incentive Scheme ("EIS") sponsored by the State Government of Western Australia.

Geographically the Lyons River Project is located approximately 1,100km north of Perth and approximately 220km to the north-east of Carnarvon and comprises a strategic (100% owned) land position of 838km<sup>2</sup> within the Proterozoic age Mutherbukin Zone of the Gascoyne Province in Western Australia. The Gascoyne Province is a deformed and high-grade metamorphic core zone of the early Proterozoic Capricorn Orogen.

Dalaroo believes the district is an emerging Broken Hill Type (BHT) / Sedimentary Exhalative ("SEDEX") deposit setting. The Browns Prospect is one of six Pb-Zn soil geochemical prospects identified at Lyons River within the Proterozoic Age basin setting covering an area of 300km<sup>2</sup> (30km by 10km) (Figures 1 and 2).

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**Figure 1:** Dalaroo Metals, Lyons River Project in the Gascoyne Province showing neighbouring companies.

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## Technical Commentary

The Browns Prospect represents the second site of Pb-Zn-Ag intersections discovered by bedrock drilling in the Mutherbukin Zone, 5km east of Dalaroo's Four Corners Pb-Zn-Ag prospect. The Browns Prospect comprise a broad Pb-Zn soil (max 1445ppm Pb, 1080 Zn ppm) and rock chip geochemical anomaly covering an area of 3km X 2km, associated with extensive iron-rich and high-grade gossanous material at surface with results of up to 39.6% Pb, up to 0.71% Zn and up to 82g/t Ag (refer DAL ASX Announcement from 15 February 2022).

Dalaroo's Aircore (AC) drill programs at Browns testing the geochemical anomalism have been successful in intersecting zones of interbedded psammitic to pelitic lithologies together with zones of disseminated base metal sulphides such as galena and sphalerite. Significant AC drilling Pb-Zn sulphide intercepts have included 10m @ 1.04% Pb, 0.49% Zn, 2.85g/t Ag from 37m (LRAC010) Including 1m @ 3.13% Pb, 0.24% Zn, 5g/t Ag from 38m and 63m @ 1.76g/t Ag from 16m (refer DAL ASX Announcement from 14 February 2023).

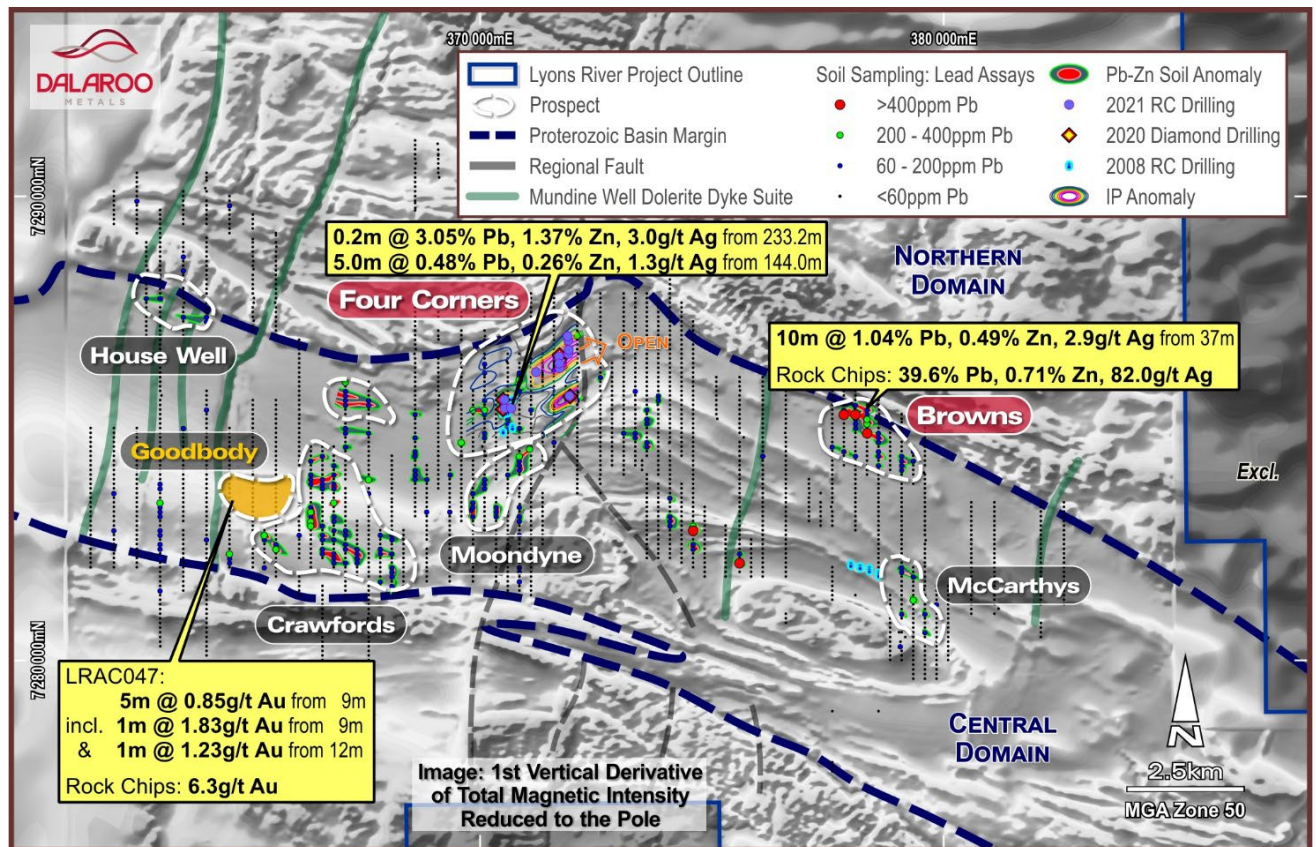


Figure 2: Lyons River, Browns prospect and five other Pb-Zn soil geochemical prospects /targets over greyscale 1 Vertical Derivative Aeromagnetics image.

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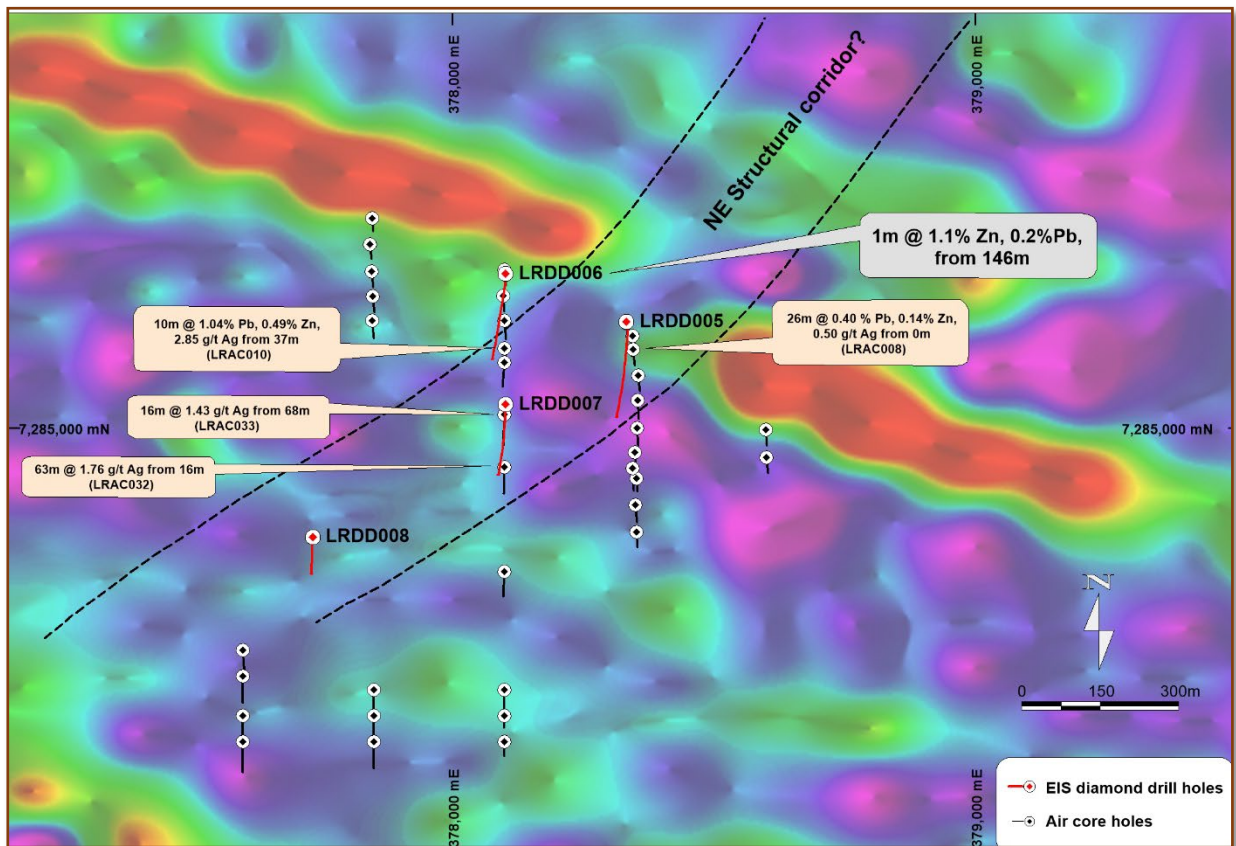


EIS Diamond Drilling at Browns

Four diamond core holes totalling 994.4 m (Figure 3) tested a prospective Pb-Zn-Ag base metal target covering an area of 3km X 2km. The holes ranged in depth from 142.3m to 300m and tested separate zones below the AC drill anomalies and prospective coincident gravity/geochemical targets (Table 1).

**Table 1:** Browns prospect EIS diamond drill holes locations.

Drillhole	MGAE	MGAN	Nominal RL	Dip (°)	Azimuth	Depth (m)	Tenement
					(mag)		
LRDD005	378333	7285202	281	-56	180	300	E09/2102
LRDD006	378102	7285294	281	-60	180	300	E09/2102
LRDD007	378102	7285045	283	-60	180	252.1	E09/2102
LRDD008	377733	7284791	286	-60	180	142.3	E09/2102



**Figure 3:** Lyons River Project – Browns prospect EIS diamond drill hole and AC drill hole plan draped over gravity image.

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EIS drilling has defined an interbedded sequence of garnet-and sillimanite-bearing pelitic to psammo-pelitic schists, intermediate to felsic gneiss, and meta-sandstones, analogous to the host rock sequences at Broken Hill. Akin to Broken Hill the rocks have undergone high-grade metamorphism, to generate the quartz-biotite-feldspar-garnet-muscovite-sillimanite assemblage. The main lithologies identified are shown in Figure 4. The sequence has been intruded by granitic pegmatite and lesser, serpentinised, ultramafic dykes.

Intervals of disseminated, blebby and veinlet pyrite occur throughout the sequence and are typically more abundant with argillaceous, pelitic lithologies (biotite-quartz schist). The thickest sequences of these argillaceous, pelitic to psammo-pelitic rocks occur in the northern part of the prospect and broadly correlate with the main (northern) Pb-Zn-Ag surface anomaly. In addition, several zones of silica-pyrite alteration have been logged throughout the sequence.

Better base-metal intercepts include:

- 1m @ 0.55% Pb and 0.11% Zn from 58m (LRDD005)
- 3m @ 0.33% Pb and 0.12% Zn from 62m (LRDD006)
- 1m @ 0.13% Pb, 0.7% Zn and 2ppm Ag from 81m (LRDD006)
- 1m @ 0.19% Pb and **1.09% Zn** from 146m (LRDD006)
- 5m @ 277ppm Pb and 1324ppm Zn from 127m (LRDD007)

The better results were returned from holes LRDD005 and LRDD006 in the northern part of the Browns prospect. Drilling in this area intercepted several zones of argillaceous, pelitic schist up to 65m thick that contain up to 5% pyrite (Photos 1 and 2). Such lithologies are commonly more prospective in BHT systems, and at Browns, these zones exhibit broad widths of base metal anomalism, that include discrete, higher-grade zones, including 1.09% Zn and 0.55% Pb over 1m intervals. Aeromagnetic data and structural analysis of drill-core suggests a possible NE structural control to mineralisation, although additional drilling would be required to confirm this.

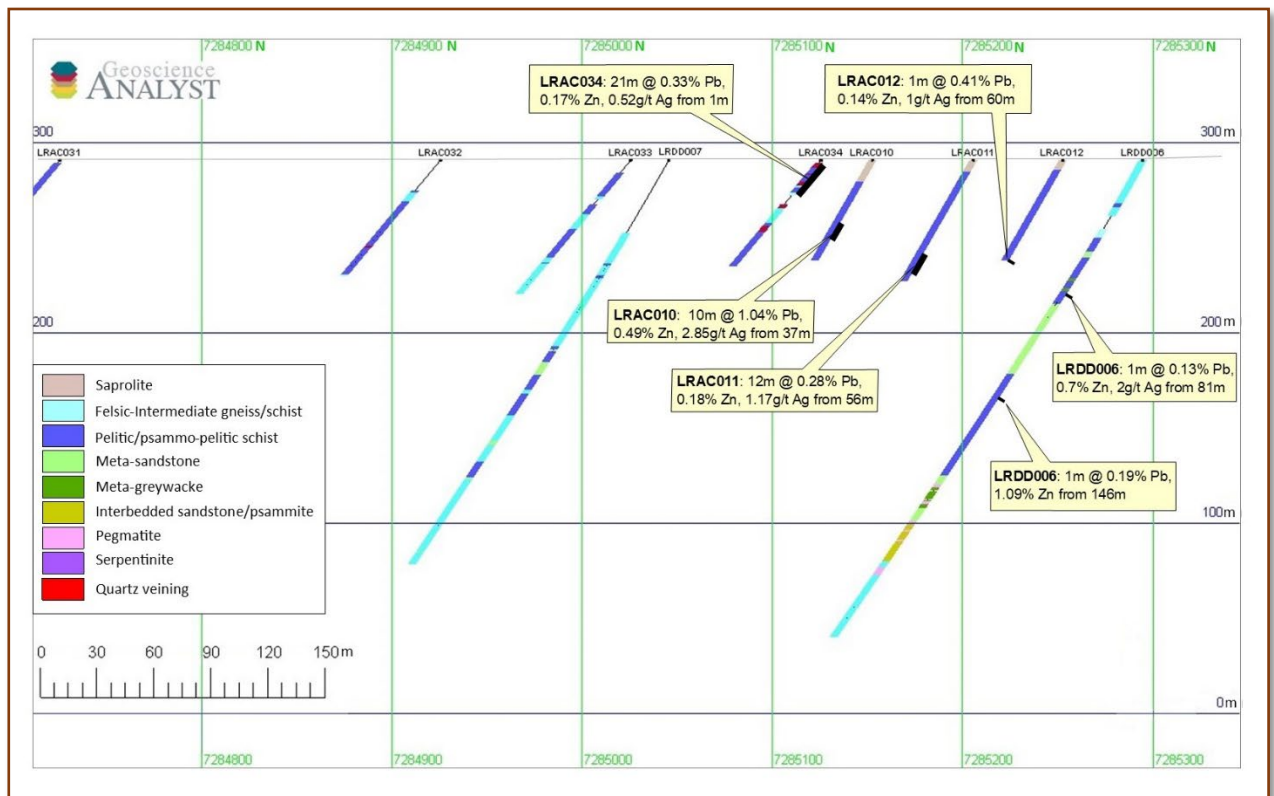
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**Photo 1:** LRDD007 – 138m. Banded to disseminated pyrite within pelitic schist, bands typically concordant with foliation



**Photo 2:** LRDD007 – 168m. Network textured pyrite associated with leucosome band within intermediate gneiss



**Figure 4:** Browns drill section 378100E

**ENDS**

Authorised for release to the ASX by the Board of Dalaroo Metals Ltd.

**For more Information:**

Please visit our website for more information: [www.dalaroometals.com.au](http://www.dalaroometals.com.au)

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#### **COMPETENT PERSON**

The information in this report that relates to Exploration results is based on information compiled by Dalaroo Metals Ltd and reviewed by Mr Harjinder Kehal who is a Registered Practicing Geologist and Member of the AusIMM and AIG. Mr Kehal has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities 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 Kehal consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

#### **FORWARD-LOOKING INFORMATION**

This report may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the planned exploration program and other statements that are not historical facts. When used in this report, the words "could", "plan", "estimate", "expect", "intend", "should" and similar expressions are forward-looking statements. Although Dalaroo believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

#### **CAUTIONARY NOTE**

The statements and information contained in this report are not investment or financial product advice and are not intended to be used by persons in deciding to make an investment decision. In releasing this report, Dalaroo has not considered the objectives, financial position or requirements of any particular recipient. Accordingly, potential investors should obtain financial advice from a qualified financial advisor prior to making an investment decision.

#### **NO NEW INFORMATION**

Except where explicitly stated, this report contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

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### About the Lyons River Project

Lyons River is located approximately 1,100km north of Perth and approximately 220km to the north-east of the coastal town of Carnarvon, Western Australia. The Lyons River Project lies within the Mutherbukin Zone of the Gascoyne Province, which is the deformed and high-grade metamorphic core zone of the early Proterozoic Capricorn Orogen (Figure 5).

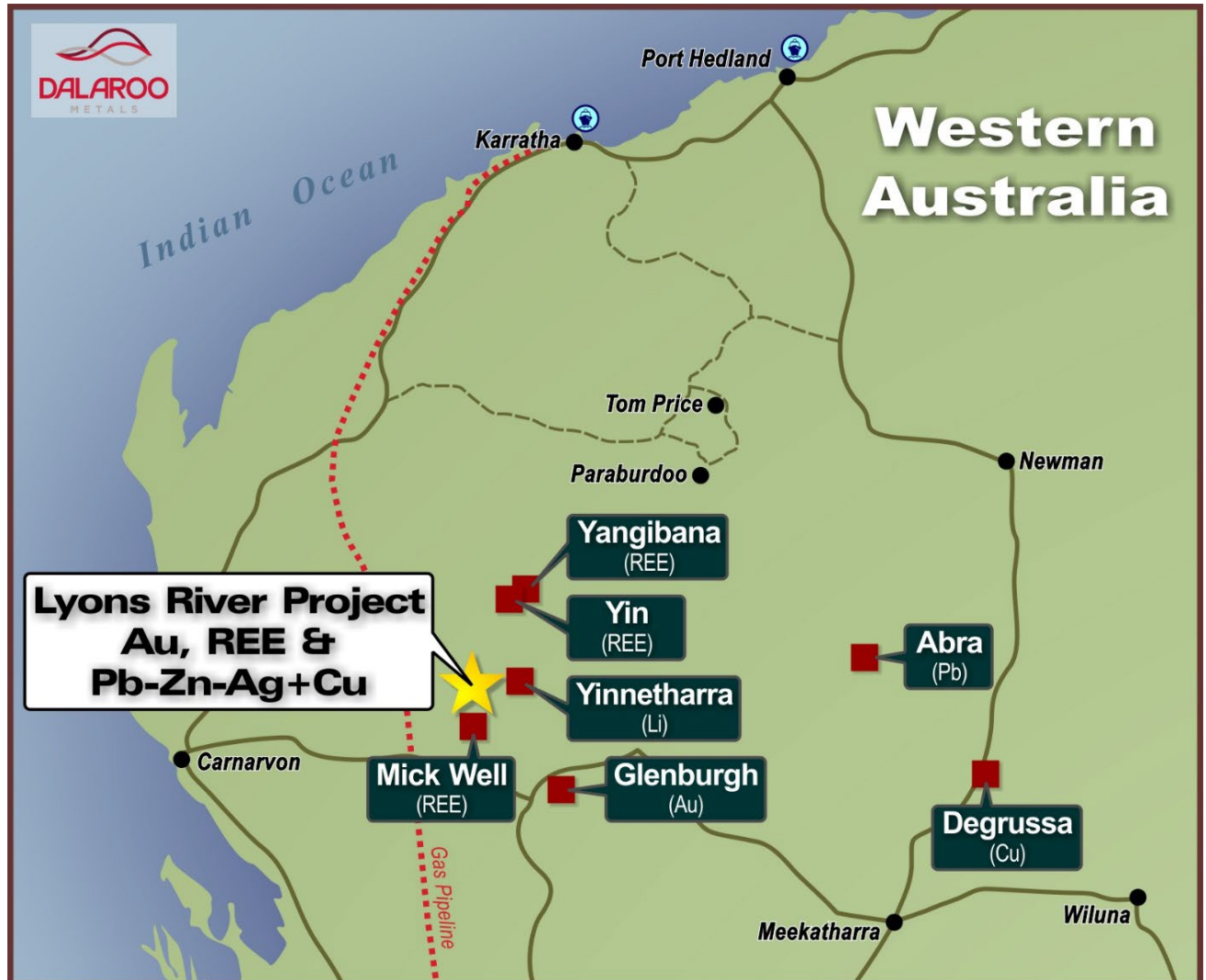


Figure 5: Lyons River Project location diagram

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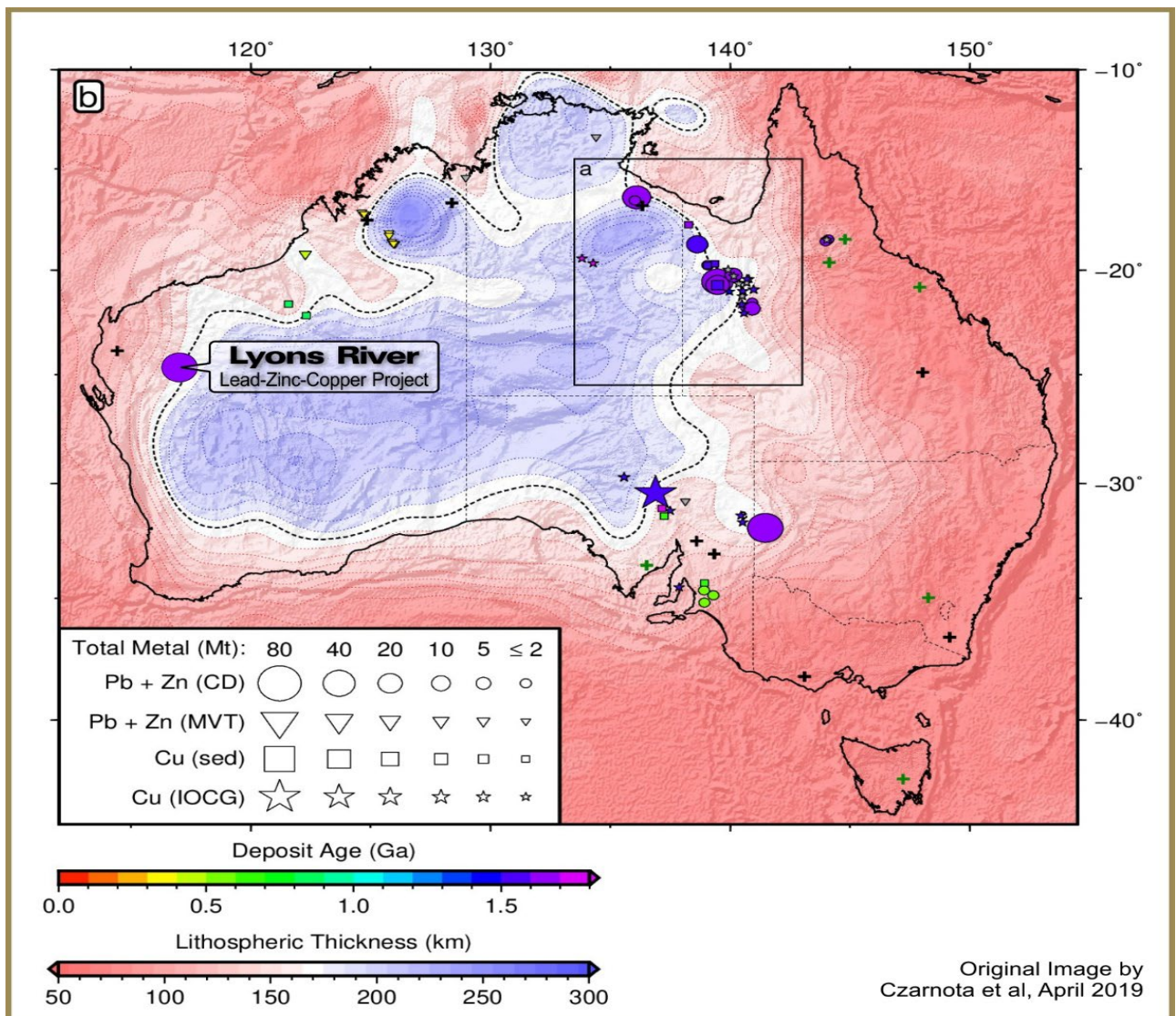


**Sweet Spots for SEDEXs/BHTs**

Geoscience Australia’s 2019 study, using *surface wave tomography and a parameterisation for anelasticity at seismic frequencies* shows 85% of the world’s sediment hosted base metal deposits occur within 200km of the edges of thick lithosphere. The Australian model shows striking correlation between major sediment hosted deposits and the edge of the thick lithosphere. This is defined by a 170km lithosphere-aesthenosphere boundary (LAB) contour. Lyons River Project is located 156km away from the 170km LAB contour (Figure 6).

Lyons River with incremental exploration work completed to date at the Four Corner and the Browns prospects has the potential for discovery of a BHT base metal deposit in the Proterozoic age rocks of the Gascoyne Province. An economic Pb-Zn-Ag discovery would open this province for a hitherto unrecognised style of mineralisation.

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**Appendix 1: Dalaroo Metals Ltd – Diamond Drilling Program Lyons River Project – Browns prospect - JORC Code Edition 2012: Table 1**

**Section 1: Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p><i>Nature and quality of sampling (e.g. 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 x-ray fluorescence (XRF) instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>Diamond drilling was used to produce half core HQ3 and NQ2 samples over selective intervals ranging from 0.2m to 1.30m (typically 1.0m), which were submitted to Bureau Veritas Laboratory Perth for geochemical analysis.</p> <p>Sample intervals were based on geology and style of sulphide occurrence.</p> <p>Qualitative care taken when sampling diamond drill core to sample the same half of the drill core</p> <p>Samples were analysed for Cr, Mg, Mn, Ni, S and Zn have been determined by ICP Optical Emission Spectrometry.</p> <p>Ag, Ba, Cu and Pb have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.</p>
Drilling techniques	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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></p>	<p>Drill hole LRDD005 (54.2 to 300m NQ2 size core), Drill hole LRDD006 (53.8 to 300mNQ2 size core)</p> <p>Drill hole LRDD007 (0 to 44.4m PCD size core then 44.4 to 66.1m HQ3 and then NQ2 to a depth of 252.1m).</p> <p>Drill hole LRDD008 (0 to 4.4m PCD size core then 5.4 to 40.7m HQ3 and then NQ2 to a depth of 142.3m).</p> <p>Westralian Diamond Driller completed the drilling.</p> <p>Core orientation is by Champ Ori Kit N/H-P.</p> <p>Down-hole surveys were read at ~ 30m intervals using Axis gyro tool.</p>

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Criteria	JORC Code explanation	Commentary
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><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></p>	<p>Drill core orientation was recorded when possible at the end of each drill run (line on bottom of core). Drill core sample recoveries for the HQ3 and NQ2 core were measured and recorded in drill log sheets. No relationship has been determined between sample recoveries and grade and there is insufficient data to determine if there is a sample bias.</p> <p>Experienced diamond drillers were engaged to ensure maximum core recovery.</p> <p>Sample recovery was generally high, negating any sample bias due to recovery.</p>
Logging	<p><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></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>Geological logging of all drillholes included; lithology, grainsize, texture, deformation, mineralisation, alteration, veining, colour, weathering.</p> <p>Diamond drill core is photographed wet and dry before cutting.</p> <p>Drill core logging is qualitative and based on drill core retained in core trays.</p> <p>All drillholes were logged in their entirety.</p>
Subsampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i></p> <p><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></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Selected sawn half HQ3 and NQ2 core samples based on geology and sulphide occurrence were submitted for geochemical analysis. The size of the sample from the diamond drilling method is considered appropriate for the mineralisation style sought and for the analytical technique used. The samples are dried, crushed and pulverised before analysis. A quartz wash was utilised between samples to avoid any carry over.</p>

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Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><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></p> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></p>	<p>Assaying of the drill samples is by standard industry practice. The samples are sorted and dried. The whole sample is crushed then split by riffle splitter to obtain a representative sub-sample which is then pulverized in a vibrating pulveriser.</p> <p>Samples were analysed for Cr, Mg, Mn, Ni, S and Zn have been determined by ICP Optical Emission Spectrometry.</p> <p>Ag, Ba, Cu and Pb have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.</p> <p>All samples analysed by Bureau Veritas Laboratory. Analytical data is transferred to the company via email.</p>
Verification of sampling and assaying	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Assay data is presented as it appears in the original documentation and electronic database and no adjustment has been made.</p>
Location of data points	<p><i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All drillhole collars are surveyed with a handheld GPS unit with an accuracy of <math>\pm 5\text{m}</math> which is considered sufficiently accurate for the purpose of the drillhole. • All co-ordinates are expressed in GDA94 datum, Zone 51. • Regional topographic control has an accuracy of <math>\pm 2\text{m}</math> based on detailed DTM data.</p>
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><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></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Diamond drillhole spacing is not regular or grid based, with the location of individual drillholes governed by targeting the position of coincident modelled gravity imagery and soil geochemistry.</p> <p>The Competent Person considers that the paucity of drilling at Browns prospect, Lyons River Project is insufficient to establish grade continuity but is indicative of mineralisation appropriate to an early-stage exploration project.</p>

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Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<p><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></p> <p><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></p>	The Competent Person has reported downhole intersections without reference to interpreted mineralisation orientation. This is appropriate for an early-stage exploration program where the orientation of mineralisation is preliminary, and it is inappropriate to geometrically correct intersections.
Sample security	<i>The measures taken to ensure sample security.</i>	Individual calico sample bags from the core drilling were placed in polyweave bags and hand delivered directly to the assay laboratory in Perth by company personnel.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	None of the drilling has been subject to audit. The Competent Person does not consider this to be material for early-stage exploration projects.

## 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	<p><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> <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></p>	The Lyons River Project tenements are wholly owned by Dalaroo Metals Limited ("Dalaroo") The Project is located 220km north-east of Carnarvon on Eudamullah Pastoral Station. The Competent Person is unaware of any impediments to development of these tenements.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Exploration of Lyons River has previously been undertaken by other parties including BHP, Altera and Serena and the Competent Person has referenced the parties involved and the results of this work throughout the text.
Geology	<i>Deposit type, geological setting, and style of mineralisation.</i>	The primary mineralisation style being sought is metamorphosed base metal mineralisation of the Broken Hill type (BHT) and SEDEX.
Drillhole 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 drillholes:</i></p> <ul style="list-style-type: none"> <li><i>easting and northing of the drillhole collar</i></li> </ul>	Refer to table of drillhole collars in body of report.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>elevation or RL (<i>Reduced Level – elevation above sea level in metres</i>) 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> <p><i>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.</i></p>	
Data aggregation methods	<p><i>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.</i></p> <p><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></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>In all cases, Exploration Results have been reported in accordance with Clause 19 of the JORC Code. Data has been reported as arithmetic averages, weighted by downhole drill intersection for identified zones of mineralisation.</p> <p>No metal equivalent values have been reported.</p>
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 drillhole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. ‘downhole length, true width not known’).</i></p>	<p>The drill core has been oriented to enable structural logging and evaluation of true thicknesses of the mineralised intervals. All drillhole intercepts/intervals are measured downhole in metres.</p>
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 drillhole collar locations and appropriate sectional views.</i></p>	<p>Appropriate diagrams are included in the main body of this report</p>
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>	<p>Assay results presented are balanced.</p>

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Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<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>	No additional meaningful and material exploration data has been excluded from this report.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Full geological, geophysical and geochemical integration of data. Drill testing (RC percussion and diamond drilling) will be undertaken on priority targets identified.  These diagrams are included in the main body of this report

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