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POTENTIAL SIZE OF BAULOORA EPITHERMAL GOLD SYSTEM SIGNIFICANTLY INCREASED AFTER GEOPHYSICS

Analysis of satellite hyperspectral data over the Bauloora Project defines potential district scale hydrothermal alteration footprint with anomalies across an area of 150km^2

Highlights

- An interpretation of ASTER (Advanced Spaceborne Thermal Emission) hyperspectral data by Global Ore Discovery Pty Ltd has highlighted further areas of the Bauloora Low Sulphidation Epithermal Gold-Silver Project (Bauloora) for follow up.
- **Nine new 'look-alike' high priority hydrothermal alteration anomalies are interpreted to be consistent with those of known Au-Ag bearing low sulphidation epithermal veins mapped elsewhere at Bauloora within the 15km^2 'Gold Zone'** (defined by >0.2g/t in rock chips).
- A further twenty-seven anomalies that are consistent with signatures of low and intermediate sulphidation epithermal Au-Ag mineral systems were identified.
- These patterns could indicate potential for additional epithermal mineralised systems within the Company's regional exploration licence.
- An extensive geochemical soil program is nearing completion across a number of these newly identified anomalies with results soon to be received.
- These results will feed into the Company's target ranking over Bauloora and further help prioritise reconnaissance on-ground mapping.

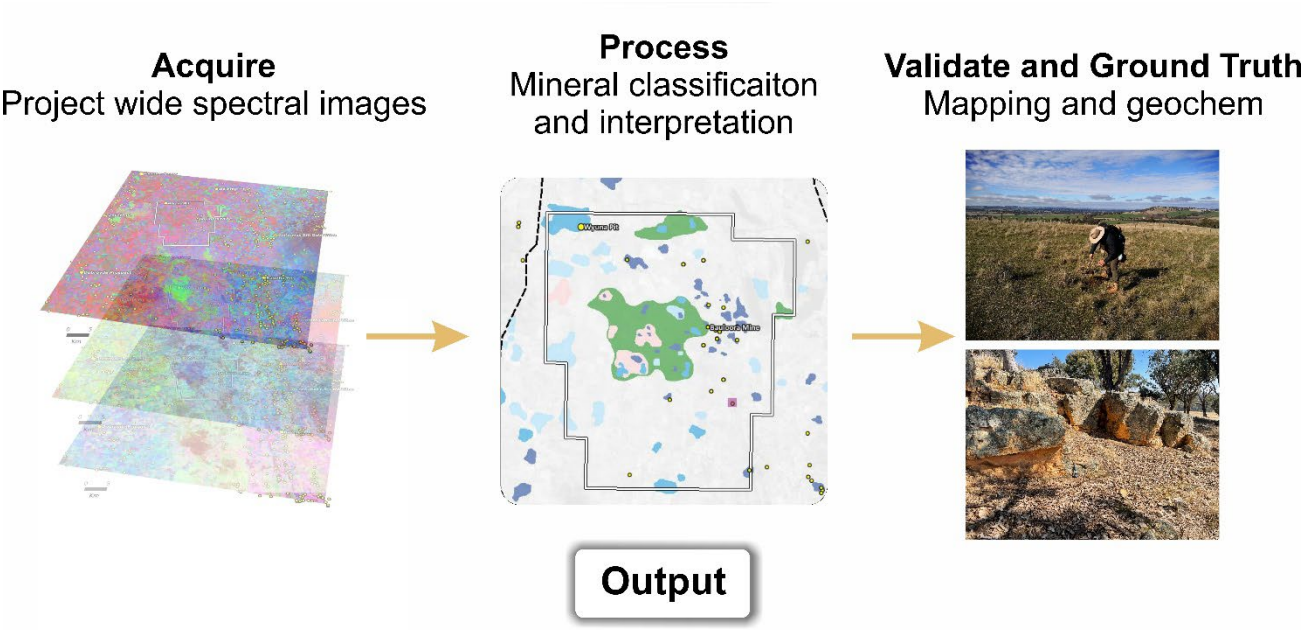

Figure 1: Advanced Spaceborne Thermal Emission workflow and outputs.

Legacy Minerals Holdings Limited (ASX: LGM, "LGM", "the Company" or "Legacy Minerals") is pleased to announce the recent geophysical results as part of its accelerated and focused exploration program across the Bauloora Gold-Silver low-sulphidation epithermal project.

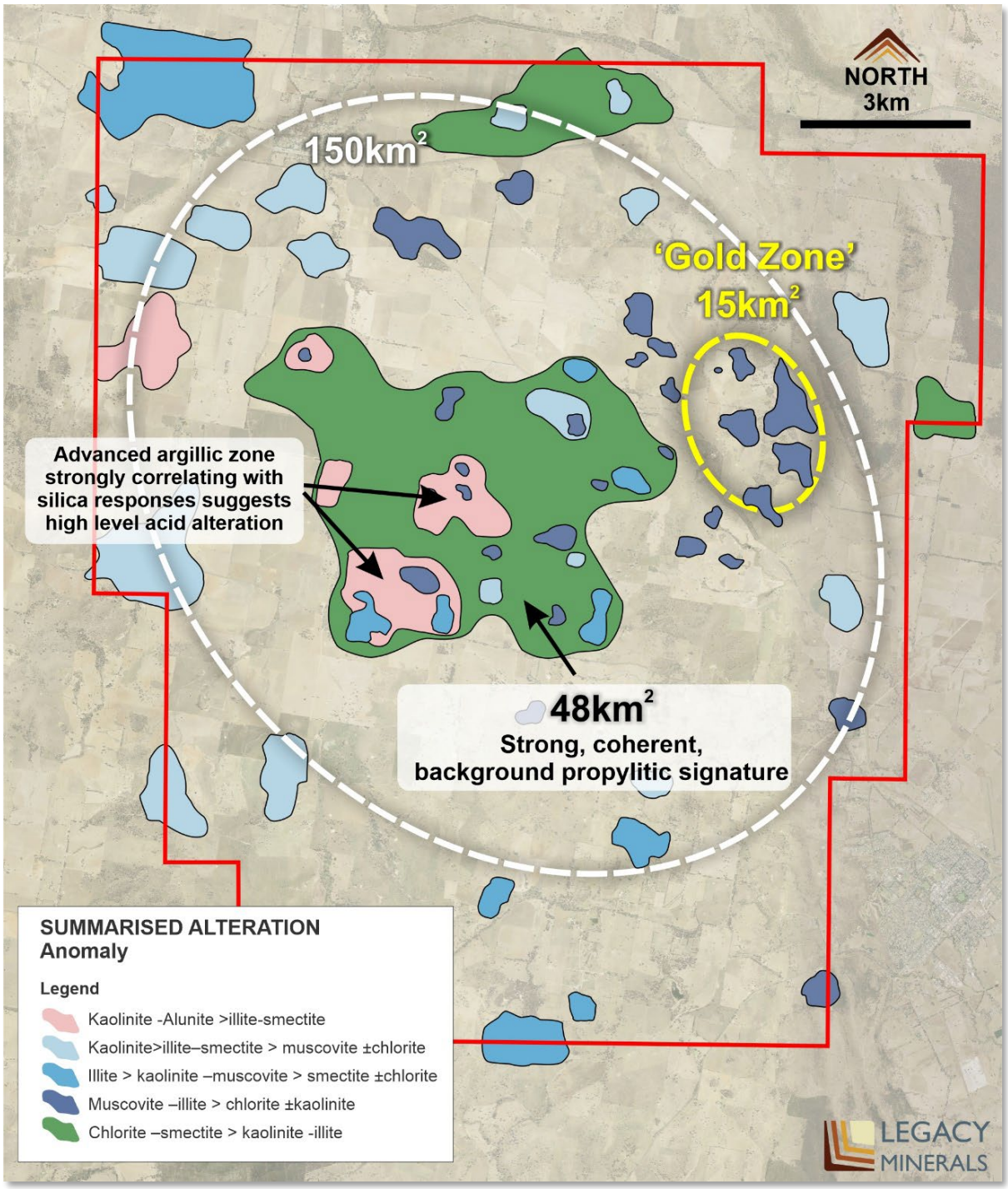

Figure 2: Bauloora tenure (red) with ASTER interpreted propylitic signature and anomalous spectral responses shown and currently defined 'gold zone'.

Management Comment

Legacy Minerals Technical Director, Thomas Wall said:

"This is the first-time satellite spectral data has been acquired and interpreted over Bauloora and we are greatly impressed with the results. Legacy Minerals' has employed modern 'smarter' exploration techniques across its tenure to screen the whole project systematically for unidentified opportunities and to focus on the key targets, reducing time and expenditure.

The results from the ASTER data have supported the interpretation of the Bauloora epithermal project's potential to host significant gold-silver epithermal deposits. Nine new 'look-alike' alteration anomalies are interpreted to be consistent with those over known Au-Ag bearing low sulphidation epithermal veins mapped elsewhere at Bauloora within the 15km2 'Gold Zone. The newly identified strong and coherent 48km^2 propylitic signature situated in the centre of the 100% owned Legacy Minerals tenure, potentially demonstrates the effects of a large, buried magmatic system.

Encouragingly, broad windows of advanced argillic to argillic alteration associated with strong silica responses suggest areas of high level, acid alteration that have never been visited or worked by previous explorers. The spectral response transitions to a dominant phyllic alteration in the east that possibly represents outflows from this central propylitic zone. This correlates with the extensive outcrops of sinter related rocks and gold-silver bearing crustiform-colloform banded epithermal veins and hydrothermal breccias at the Breccia Sinter, Mee Mar and Quarry Prospects.

Legacy Minerals will focus on incorporating this data with the other geoscientific datasets including geochemistry and geophysics to build a detailed system model prior to further on-ground field reconnaissance work."

ASTER Results

The ASTER is one of five state-of-the-art instrument sensor systems operating on the Terra spacecraft. ASTER utilizes a unique combination of wide spectral coverage and high spatial resolution in the visible near-infrared through shortwave infrared to the thermal infrared regions. It is a partnership between NASA, Japan's Ministry of Economy, Trade and Industry, the National Institute of Advanced Industrial Science and Technology in Japan, and Japan Space Systems.

The 62 alteration anomalies were interpreted using a combination of alteration mineral distribution, abundance, composition, and crystallinity maps. Anomalies characterised by a summary alteration assemblage, and have been attributed if they intersect iron oxide, silica and quartz responses, their proximity to or on strike from a major structure, and the host lithology.

Initial review shows ASTER alteration anomalies associated with known mineral occurrences are dominantly argillic, trending to phyllic, with strong muscovite-illite dominant assemblages (Figure 2). There is an observed transition from advanced argillic, kaolinite-alunite-silica dominated assemblages west of the Mt Felstead mine, to argillic kaolinite-illite-smectite, to a stronger muscovite (phyllic) response to the east. This phyllic response strongly correlates to the known extensive gold-silver bearing low sulphidation epithermal veins and sinter related lithologies seen at the Breccia Sinter, Quarry and Mee Mar North prospects.

This suggests a possible outflow to east of the hydrothermal system transitioning away from the strong, coherent propylitic response in the centre of the Bauloora exploration licence (Figure 3). Within the 48km^2 propylitic zone discrete windows up to 6.5km^2 of advanced argillic to argillic alteration are seen with associated strong silica responses. These areas suggest the potential for high-level acid alteration. They form priority targets for follow up work as high-level acid alteration have the potential to conceal significant gold and silver ore bodies at depth. These anomalies have never been visited or explored by previous companies and as such, present an exciting opportunity to define new prospective target areas.

Furthermore, similar patterns of alteration as those seen associated with the known gold-silver epithermal veins at Bauloora, strongly indicate the potential for additional look-a-like low sulphidation epithermal veined zones to the south and west of the currently defined gold zone.

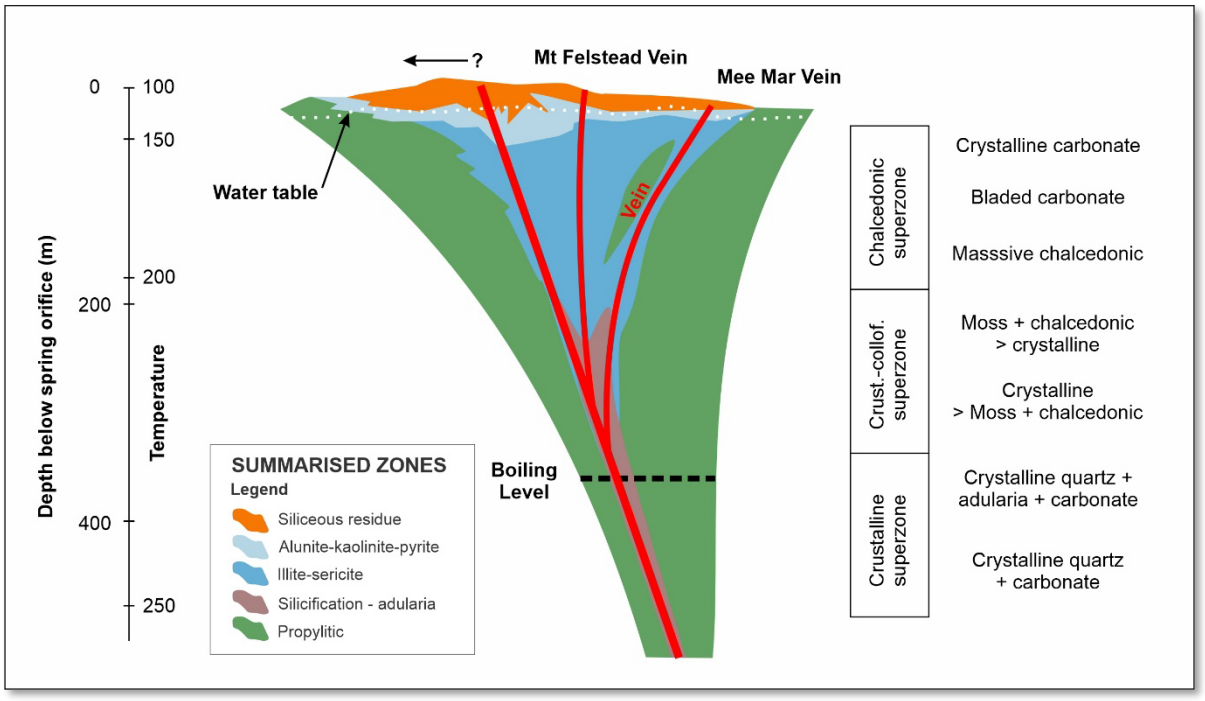

Figure 3: Conceptual schematic of low-sulphidation epithermal model (modified from Buchanan 1981, Morrison et. al 1995)

Regional Setting in the Lachlan Fold Belt

The Bauloora Project is located in the Central Lachlan Fold Belt NSW, which is host to world-class copper-gold orebodies including the Cadia-Ridgeway, Northparkes, and Cowal Mines. It is in a zone which is bounded to the west by the Gilmore Fault Zone and to the east by the Cootamundra Fault. Bauloora contains structural remnants of Early Silurian dominantly dacitic volcanic rocks and related granites, Siluro-Devonian sediments and felsic volcanic rocks deposited on a basement of Late Ordovician turbidites, Late Ordovician to Early Silurian intermediate volcanic rocks and related intrusions and sedimentary rocks.

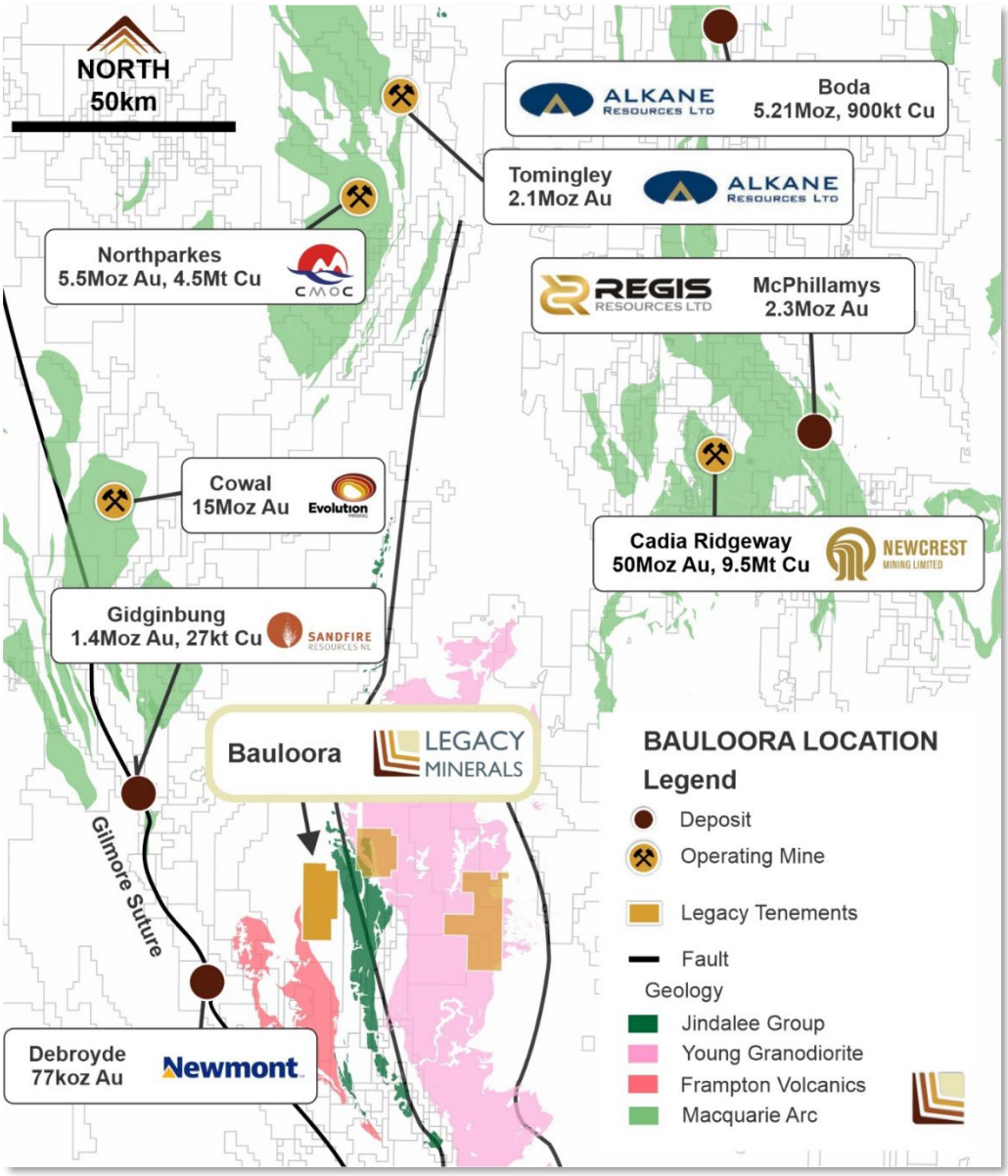

Figure 4: Regional setting of the Bauloora Epithermal Project

LEGACY MINERALS INTERACTIVE INVESTOR HUB

Engage with us directly by asking questions, watching video summaries, and seeing what other shareholders have to say about this and past announcements at our Investor Hub

https://investorhub.legacyminerals.com.au/

Approved by the Board of Legacy Minerals Holdings Limited.

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DISCLAIMER AND PREVIOUSLY REPORTED INFORMATION

Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company's website https://legacyminerals.com.au/. The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

This announcement contains certain forward-looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Legacy Minerals Holdings Limited (LGM). These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement reflect the views of LGM only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, LGM does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward-looking statements is based.

COMPETENT PERSON'S STATEMENT

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Thomas Wall, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Wall is the Technical Director and a full-time employee of Legacy Minerals Pty Limited, the Company's wholly owned subsidiary, and a shareholder of the Company. Mr Wall 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 Resources and Ore Reserves. Mr Wall consents to the inclusion in the report of the matters based on his information in the form and context in which it appears in this announcement.

REFERENCED DOCUMENTS

Company's Prospectus dated 28 July 2021 lodged 9 September 2021 (ASX: LGM)
LGM: ASX 17AUG22 New High-Grade Gold Assays Expand Bauloora Gold System
LGM: ASX 16JUN22 High-Grade Silver, Gold Drill Results, Met-Testing Underway
LGM: ASX 13SEP22 LGM Company Presentation - NWR Explorers Conference
LGM: ASX 4JUL22 Exceptional Gold-Silver-Lead-Zinc Recoveries at Bauloora
Buchanan, L. J. (1981) "Precious metal deposits associated with volcanic environments in the southwest," Arizona Geol. Soc. Digest, 14, pp. 237–261.
Klondike Exploration Services, "Textural Zoning in Epithermal Quartz Veins", Townsville: Queensland 1995.

About Legacy Minerals

Legacy Minerals is an ASX listed public company that has been involved in the acquisition and exploration of gold, copper, and base-metal projects in the Lachlan Fold Belt since 2017. The Company has six wholly owned and unencumbered tenements that present significant discovery opportunities for shareholders.

Au-Cu (Pb-Zn) Cobar (EL8709, EL9256) Undrilled targets next door to the Peak Gold Mines with several priority geophysical anomalies Late time AEM conductors, IP anomaly, and magnetic targets Geochemically anomalous - gold in lag up to **1.55g/t Au.**	**Au Harden** (EL8809, EL9257) Large historical high-grade quartz-vein gold mineralisation open along strike and down plunge. Significant drill intercepts include **3.6m at 21.7g/t Au** 116m and **2m at 17.17g/t Au** from 111m.
Au-Ag Bauloora (EL8994, EL9464) A 45km^2 hydrothermal alteration area containing low-sulphidation epithermal-style gold silver targets. Historical bonanza grades at the Mt Felstead Prospect included face sampling up to **3,701g/t Ag, 6.9g/t Au, 29% Pb, 26% Zn,** and **6.4% Cu.**	**Au-Cu Fontenoy** (EL8995) **EARTH AI-Alliance** The Project exhibits a greater than 8km long zone of Au and Cu anomalism **defined** in soil sampling and drilling. Significant drill intercepts include **79m at 0.27% Cu** from 1.5m with numerous untested anomalies along the 8km strike length.
Cu-Au Rockley (EL8296) Prospective for porphyry Cu-Au and situated in the Macquarie Arc Ordovician host rocks the Project contains historic high-grade copper mines that graded up to **23% Cu.**	**Sn-Ni-Cu Mulholland** (EL9330) **EARTH AI-Alliance** Associated polymetallic mineralisation. There are several tin and nickel occurrences in the Project area with trends up to 2.6km defined in drilling. Significant drill intercepts include **44m at 0.45% Ni.**

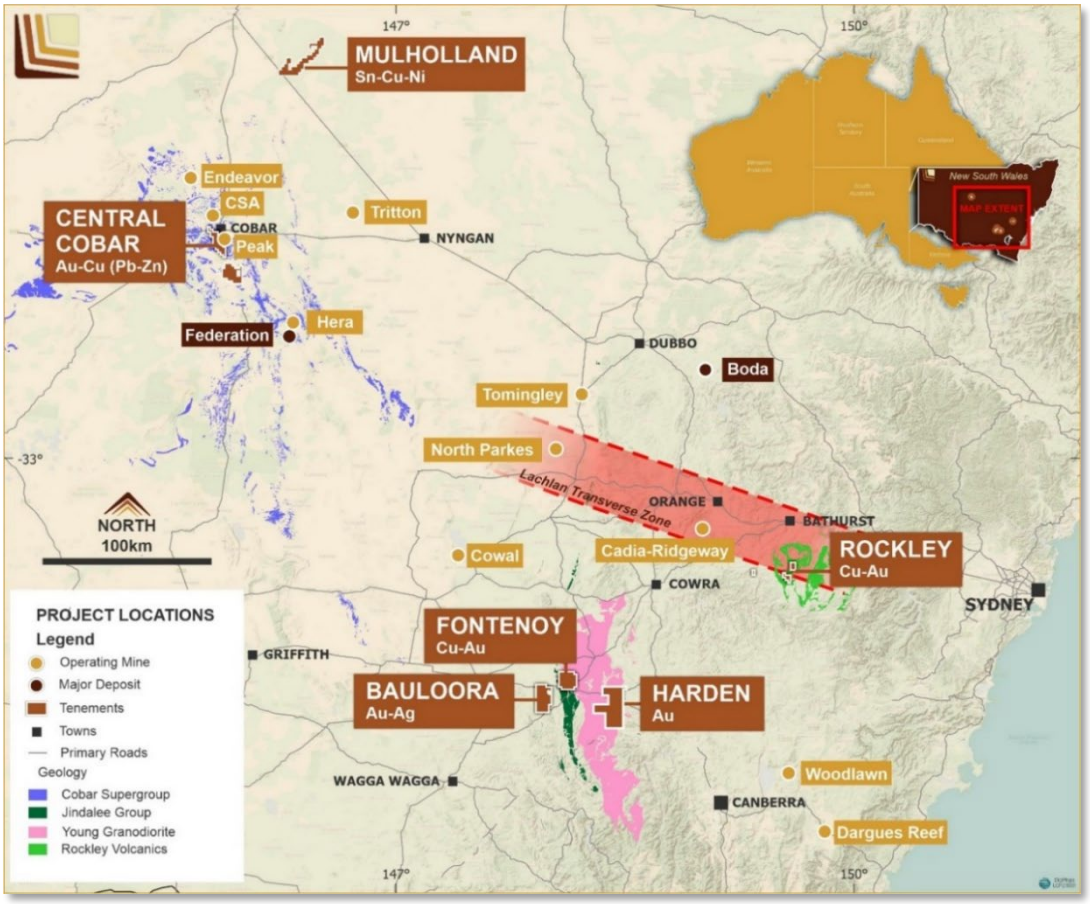

Figure 5: Legacy Minerals Tenements, NSW, Australia

Appendix 2 – JORC Code, 2021 Edition Table 1

Section 1 Sampling Techniques and Data

Criteria	*JORC Code Explanation*	Commentary
Sampling Techniques	*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 XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Not applicable. No sampling being reported.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Not applicable. No sampling being reported.
	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 (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.	Not applicable. No sampling being reported.
Drilling techniques	*Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diametre, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).*	Not Applicable. No drilling conducted.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not Applicable. No drilling conducted.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not Applicable. No drilling conducted.
	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.	Not Applicable. No drilling conducted.
Logging	*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.*	Not applicable. No sampling being reported.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Not applicable. No sampling being reported.
	The total length and percentage of the relevant intersections logged.	Not Applicable. No drilling conducted.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not Applicable. No drilling conducted.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not Applicable. No drilling conducted.
	For all sample types, the nature, quality and appropriateness of the sample preparation	Not applicable. No sampling being reported.

	technique.	
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Not applicable. No sampling being reported.
	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.	Not applicable. No sampling being reported.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable. No sampling being reported.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Not applicable. No sampling being reported.
	For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable. No sampling being reported.
	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.	Not applicable. No sampling being reported.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Not applicable. No sampling being reported.
	The use of twinned holes.	Not applicable. No sampling being reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable. No sampling being reported.
	Discuss any adjustment to assay data.	Not applicable. No sampling being reported.
Location of data points	*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.*	Not applicable. No sampling being reported.
	Specification of the grid system used.	Not applicable. No sampling being reported.
	Quality and adequacy of topographic control.	Not applicable. No sampling being reported.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Not applicable. No sampling being reported.
	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. Whether sample compositing has been applied.	Not applicable. No sampling being reported.
	Whether sample compositing has been applied.	Not applicable. No sampling being reported.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Not applicable. No sampling being reported.
	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.	Not applicable. No sampling being reported.
Sample security	*The measures taken to ensure sample security.*	Not applicable. No sampling being reported.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	The Company has not completed any external audits or reviews of the data.

Section 2 Reporting of Exploration Results
(Criteria in this section apply to all succeeding section)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Status	*Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *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.*	The Bauloora Project is comprised of EL8994. The license is owned 100% by Legacy Minerals Pty Ltd (a fully owned subsidiary of Legacy Minerals Holdings Limited). There are no royalties or encumbrances over the tenement areas. The land is primarily freehold land. There are no native title interests in the license area.
Exploration Done by Other Parties	*Acknowledgment and appraisal of exploration by other parties.*	Teck Exploration - conducted mapping, IP geophysics, rock chip sampling, diamond and RC drilling. BP Minerals/MM&S - conducted detailed mapping, geochemical sampling and AC drilling. Billiton Australia - conducted mapping, IP geophysics, rock chip sampling. North Limited – rock chip sampling, soil sampling, drilled AC and RC holes. Robust Resources – soil sampling diamond and RC drilling. Bushman Resources – Rock chip sampling
Geology	*Deposit type, geological setting and style of mineralisation*	Known mineralisation at the Bauloora project sits within the Silurian Frampton Volcanics and Devonian Bethungra Formation, Cowcumbala Rhyolite and Deep Gully Creek Conglomerate. The project is considered prospective for low-sulphidation epithermal style gold-silver and base-metal mineralisation.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:* *• Easting and northing of the drill hole collar* *•Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *• Dip and azimuth of the hole* *• Down hole length and interception depth* *• Hole length*	Not Applicable. No drilling.
	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.	Not Applicable. No drilling.
Data aggregation methods	*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.*	Not applicable. No aggregation.
	Where aggregated 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.	Not applicable. No aggregation.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Gold is deemed to be the appropriate metal for equivalent calculations as gold is the most common metal to all mineralisation zones. Bauloora gold reported equivalents are based on assumptions: AuEq(g/t)= Ag(g/t)+49*Zn(%)+32*Pb(%) and

		ZnEq(%)= Zn(%)+0.021*Ag(g/t)+0.648*Pb(%) calculated from 31 August 2022 spot prices of US$1,710/oz gold, US$18.88/oz silver, US$3,540/t zinc, US$7,719/t copper, US$1,949/t lead and metallurgical recoveries of 88.3% gold, 96.9% silver, 97.4%, zinc, 94.6% copper, and 95.5% lead which is 3rd stage rougher concentration stage average recoveries in test work commissioned by LGM and reported in the ASX announcement dated 4 July 2022 titled "Exceptional Gold-Silver-Lead-Zinc Recoveries at Bauloora". It is LGM's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. The mineralisation intercepted in the historical Mee Mar RC drilling indicates strong similarities to that intercepted at Mt Felstead. The close proximity of Mee Mar and Mt Felstead prospects to one another, the high base metal and precious metal values and their association with vein breccia textures gives confidence in reporting metal equivalents based on the metallurgical test work conducted at Mt Felstead.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.*	Not applicable. No drilling.
Diagrams	*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 plane view of drill hole collar locations and appropriate sectional views.*	Refer to Figures in body of text. A prospect location map are shown in the Company's Prospectus dated 28 July 2021 and within the body of this report.
Balanced Reporting	*Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All assay results have been reported. Reports on historical exploration can be found in the Company's Prospectus dated 28 July 2021.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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.*	Global Ore Discovery were engaged to acquire and process a suitable ASTER satellite scene with an aim to to identify surface alteration over the Bauloora Project area, to identify possible epithermal related alteration signatures. A single ASTER scene was required to cover the regional area of interest; ASTER Scene ID AST_L1B_00301262003000833 Acquisition Date 24 October 2006

Band	Reflected Range (µm)	Spatial Resolution (m)	Band Explanation/Uses
1	0.52 -0.60	15 m	Visible and Near-Infrared
2	0.63 -0.69	15 m	Visible and Near-Infrared
3N	0.78 -0.86	15 m	Visible and Near-Infrared
4	1.600 -1.700	30 m	Shortwave Infrared
5	2.145 -2.185	30 m	Shortwave Infrared
6	2.185 -2.225	30 m	Shortwave Infrared
7	2.235 -2.285	30 m	Shortwave Infrared
8	2.295 -2.365	30 m	Shortwave Infrared
9	2.360 -2.430	30 m	Shortwave Infrared
10	8.125 -8.475	90 m	Thermal Infrared

11	8.475 -8.825	90 m	Thermal Infrared
12	8.925 -9.275	90 m	Thermal Infrared
13	10.25 -10.95	90 m	Thermal Infrared
14	10.95 -11.65	90 m	Thermal Infrared

Global Ore have created and colour enhanced a series of False Colour images using combinations of the available ASTER bands The ASTER bands,wavelengths and resolution (table above). Natural Colour composite algorithm applied to the VNIR bands 321 in Red (band 2 Green 3 xband 1 +band 3 4 Blue 3 xband 1 band 3 4 generates an image that simulates natural colour at 15 m pixel size

4-6-8 RGB stretch (Geology and Alteration). This image uses Shortwave Infra Red bands 4 6 and 8 in RGB These bands are highly sensitive to lithological and alteration variations and are in a region of the electromagnetic spectrum that the eye cannot perceive This is a recommend image for geological/alteration interpretation Pinks represent clay alteration, greens/browny yellows represent chloritic/mafic alteration and rocks, bluey purples potentially represent carbonates and brown represents vegetation or lack of visible outcrop

6-3-1 RGB stretch (TM 741 Simulation). This image uses a combination of visible and infra red bands This combination of bands is sensitive to lithological variations and may be useful for geological/alteration interpretation This image is similar to traditional Landsat TM 741 images.

AlOH clay Ferric Iron Silica RGB Composite image. This image is derived from ratios to map each of the above components then placing them into RGB bands The output colours are best visualised in the ternary colour diagram adjacent

Further Work	*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.*	See body of report. See figures in body of report. Further exploration is discussed in the announcement and will be planned based on ongoing geochemical and geophysical results and geological assessment of prospectivity.