**ASX: LGM** 



# **Exploration Momentum Continues Across NSW Portfolio**

### Drake

- The Airborne Mobile Magneto-Tellurics (Airborne MT) geophysical survey will commence at the Drake Project within next two weeks, being the first large-scale, systematic exploration in 35 years. Results are expected be available by March.
- Ground truthing of the recently completed Light Detection and Ranging (LiDAR) survey interpretation, which identified 3,367 historical mining features, is underway<sup>i</sup>. The initial focus is on the extensive Lunatic Antimony Field, where very limited historical work has been completed.

The mineral resource estimation (MRE) update is ongoing, with results expected by mid-February.

- In addition to the gold (Au) and silver (Ag) focus in historical MREs, the updated MRE will incorporate the polymetallic zinc (Zn), copper (Cu), and lead (Pb) nature of the deposits
- Examples of this polymetallic nature include drill results at Red Rock which returned 22m at 2.3g/t Au from surface, including intervals grading up to 31% Zn and 23% Pb<sup>ii</sup>.
- The MRE will also incorporate current prices for gold and silver, which have significantly increased since the historical MREs were completed in 2013 and 2020.
- Drilling is planned for Drake in the Q2 period following the completion of the Airborne MT survey and ground truthing campaigns, which are underway.

### Thomson

- Core cutting and sampling of historical drill holes (which were unsampled at the time of drilling) is ongoing. Assays from these holes are expected to be received in March.
- Passive seismic ANT (Ambient Noise Tomography) and ground gravity surveying is now complete with results expected to be delivered in February.
- Fleet Space Artificial intelligence (Ai) data analysis is expected to be completed in February
- Drilling at Thomson is due to commence following the completion of this analysis.

# Bauloora – Newmont

## **JV Partnered Project Updates**

- Drilling completed in December, with diamond core processing now complete and dispatched from the Newmont Cadia Valley facilities. Results are expected in late February to early March.
- Multi-element soil and surface sampling to commence in February to provide extensions of the systematic geochemical coverage towards the mapped southern extents of the vein field.

## **Glenlogan – S2 Resources**

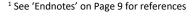
- Tensor Induced Polarisation/Magneto Telluric (TIP/MT) geophysical surveys have commence over the copper-gold porphyry target drilled in late 2024. Results are expected within six weeks.
- TIP/MT has the potential to map out hydrothermal alteration zones around the fringes of the recently drilled magnetic target to guide potential follow up drillhole locations.

## Fontenoy – Earth Al

- Three drill holes were completed in December 2024 at the Fontenoy Project and assays are expected to be received in March.
- Surface geochemical sampling and planning of airborne geophysical surveys are underway.



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Legacy Minerals Holdings Limited (ASX: LGM, Legacy Minerals or the Company) is pleased to provide an update on the exploration activities currently underway across the Company's tenement portfolio.

#### Management comment – Legacy Minerals CEO & Managing Director Christopher Byrne said:

"Legacy Minerals has an exciting year ahead, with exploration momentum continuing on several fronts. The Drake and Thomson Projects are seeing some of the largest geophysical surveys being conducted currently in NSW. The Company is also working towards key upcoming programs of work which include drilling at Thomson and an updated mineral resource estimate at Drake in February.

The multi-faceted acquisition of key geochemical, geophysical, and geological data sets will further enhance these project's significant geological information that we have already collected. The patient and systematic approach in collecting these datasets is essential to being able to define the best possible drill targets for the planned upcoming campaigns.

Furthermore, our JV partners continue to diligently advance the Bauloora, Glenlogan, and Fontenoy Projects. A number of planned activities are to commence shortly, as well as diamond drilling assays pending from Bauloora and Fontenoy and a large-scale geophysical survey underway at Glenlogan."

### **Drake Project**

#### **Mineral Resource Estimate Update**

Legacy Minerals has engaged Mining Plus Pty. Ltd. to update the historical JORC 2004 and 2012 MRE reported by previous exploration companies across the Drake Project. These historical estimates were completed at times of lower commodity and precious metal prices and in some instances where later drilling has since been completed by explorers. The estimates will look to at the inclusion of the copper, zinc and lead in the mineral resource estimates where appropriate.

The Company expects results to be available in mid-February.

#### **Airborne Mobile MT**

The Company has engaged Expert Geophysics Limited to complete an Airborne MT survey over the Drake Project Exploration Licences. The survey will cover approximately 279 km<sup>2</sup> with a flight line spacing of 200m.

The objective of the survey is to provide electrical resistivity imaging to a depth of 1km and Very Low Frequency Electromagnetic (VLF) data providing near surface electromagnetic (EM) data which will help in defining geological structures related to gold, silver and base metal mineralisation.

These results will enhance the existing extensive database of technical information including airborne and ground geophysics, geochemistry, historical drilling results and geology. Interpretation of the database is expected to generate new targets that will require a follow up field exploration program of geological mapping, sampling and drill testing. Airborne MT resistivity data will be modelled to help provide a more accurate guide to depth and location of drill targets.

The survey is expected to be completed in early February with data processing and interpretation updates expected to be available within six weeks.

#### Antimony Ground-Truthing

Recently acquired LiDAR interpretation has identified 3,367 historical mining features. Of these the initial focus will be on increasing the Company's understanding of the Lunatic Antimony Field, in particular vein strike extents and the potential for high grade antimony (Sb) and gold.

Highlight historical rock chip sampling over the Lunatic Field include<sup>iii</sup>:





- Caledonian Reef: 29.2% Sb, 3.1g/t Au, 46g/t Ag (80/M179)
  - Hugh & Jackson Reef: 20.4% Sb, 1.8g/t Au (80/M176), 15.8% Sb, 0.25g/t Au (62145)
- Deep Creek Sb Vein: 7.1% Sb, 0.55g/t Au (62147)

The antimony field covers an area of approximately 5km<sup>2</sup> with LiDAR interpretation indicating that some workings extend almost continuously for up to 1.6km (Lunatic Prospect and Johnson's Prospect).

The Lunatic Field, which sits within the Drake Project, hosts several occurrences of 'Hillgrove style' antimony-gold mineralisation. The Lunatic Field is located approximately 190km north, and within the same New England Fold belt as Larvotto Resources' Hillgrove Mine (ASX:LRV), one of the ten largest antimony resources globally and Australia's largest antimony deposit<sup>iv</sup>.

# **Thomson Project**

## Historical drill core sampling

Logging and sampling of previously unsampled mineralised and strongly altered historic drill core has commenced. These unsampled portions of historical drill holes represent a significant additional data set that can be acquired at low cost. These assays have the potential to expand previously known mineralised drilling intercepts and to provide vectors towards intrusion related gold and copper (IRG-Cu) mineralisation to help guide future drill testing.

Core cutting has been slower than anticipated with strongly silicified core slowing progress. Assays from re-sampling of this historical drill core are expected in March.



**Figure 1:** Field team sampling historical drill core. **Figure 2:** CUTBD02, 419.8m – Unsampled banded arsenopyrite (grey) in quartz vein (see Appendix 1 & 2, Drill Log Summaries)<sup>v</sup>.

<u>Cautionary Note – Visual Estimates of Mineralisation:</u> 'Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.'





#### Ambient Noise Tomography (ANT) and ground gravity surveys

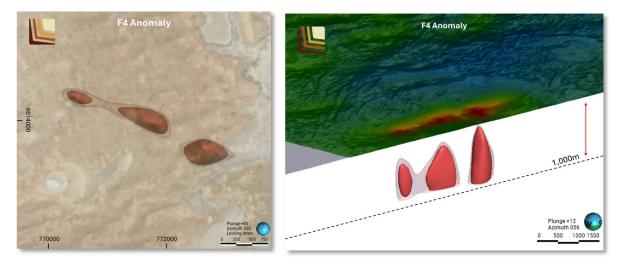
3D gravity and passive seismic ANT surveys were completed last week to refine high-priority targets for drill testing. The surveys capture seismic and gravity data facilitated by edge computing and rapid data processing which delivers real-time 3D mapping of the underlying geology. The surveys were completed at the end of last week with interpretations ongoing.



Figure 3. Ground gravity and ANT surveying over the Cuttaburra area. Figure 4. ANT geode placed into the ground to take passive seismic readings continuously over seven days of deployment.

#### Artificial intelligence supported drill targeting

Artificial Intelligence computing will be applied to the new geophysical data sets including the recently modelled magnetic data and the new historical drill assay data to aid geological interpretations and to focus future drill targeting. Fleet Space has built an extensive knowledge of NSW geology, intrusion-related deposits, and porphyry deposits. This expertise will be critical in helping the Company identify and drill test-quality IRG-Cu targets within the Thomson Project.



**Figure 5:** Plan view of the F4 magnetic anomaly shells (>0.006 SI) over aerial image (MGA94 z54). **Figure 6:** 3D magnetic inversion model anomaly shells (>0.006 SI) (section 6613500mN, MGA94 z54)<sup>vi</sup>.





## **Partner Funded Projects**

### Bauloora Project – Newmont earn-in

At the Bauloora Project, where Newmont is earning a 70% and potentially an 80% interest, the assays for four diamond drill holes completed in Q4 2024 are pending. The drill program targeted the Thunderbolt and Quarry Prospects that present a combination of undrilled, interpreted outcropping low-sulphidation epithermal veins and high-tenor geochemical and coincident geophysical anomalies. Core cutting and sampling were completed at Newmont's Cadia Valley operation, and all samples have been dispatched to the laboratory. Assay results are expected within six weeks.

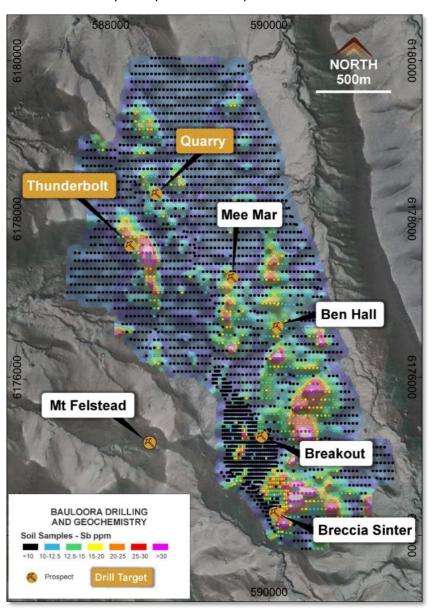


Figure 7: Bauloora Prospects over elevation and antimony in soils with targeted prospect areasvii.







**Figure 8:** Example of outcropping epithermal chalcedony-quartz vein at the Quarry Prospect (no estimated sulphides, no samples taken, see cautionary statement on page 3)<sup>viii</sup>.

## Glenlogan Project – S2 Resources earn-in

At the Glenlogan Project, where S2R is earning a 70% and potentially an 80% interest, land access agreements have been completed, and a TIP/MT geophysics survey is starting this week. This survey is designed to identify any resistive and/or chargeable zones around the fringes of the strong magnetic anomaly drilled late 2024 that may be related to alteration associated with copper-gold bearing porphyry intrusions on the fringes of the large magnetic intrusion. To ensure adequate coverage and penetration, the survey extends significantly beyond the limits of the magnetic body (see Figure 9). It is expected to take two weeks to complete the survey with results being available in six weeks<sup>ix</sup>.

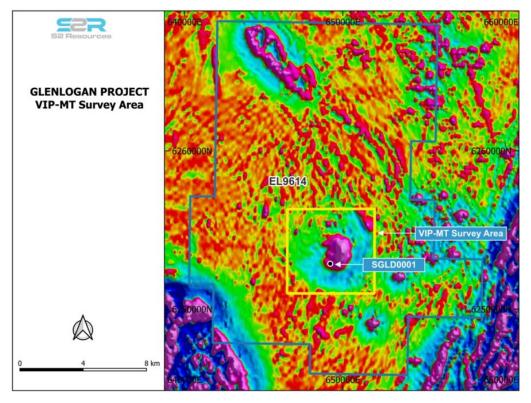


Figure 91. Extent of TIP/MT geophysical survey area at Glenlogan, around the magnetic intrusive<sup>x</sup>.





## **Fontenoy Project**

At the Fontenoy Project, where Earth AI is earning an 80% interest in the Project, assay results are waited for three diamond drill holes completed at the end of 2024. Assays for the drilling are expected to be returned in March 2025. Further to this, surface geochemical surveys have commenced with airborne EM geophysical survey planning underway.

## For more information:

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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 <u>https://legacyminerals.com.au/</u>. 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 announcements in this announcements in this announcement is statements in this announcement statements in this announcement reflect the views of 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 Australiain Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Wall consents to the inclusion of the matters based on this information in the form and context in which it appears in this announcement.





## **About Legacy Minerals**

Legacy Minerals is an ASX-listed public company that has been acquiring and exploring gold, copper, and basemetal projects in NSW since 2017. The Company has nine projects that present significant discovery opportunities for shareholders.

Au-Ag Black Range (EL9464, EL9589)	Cu-Au Drake (EL6273, EL9616, EL9727, ALA75)
Extensive low-sulphidation, epithermal system with	Large caldera (~150km <sup>2</sup> ) with similar geological
limited historical exploration. Epithermal occurrences	characteristics to other major pacific rim low-sulphidation
across 30km of strike.	deposits.
Cu-Au Rockley (EL8926)	.Au-Cu (Pb-Zn) Cobar (EL9511) <u>Helix JV</u>
Prospective for porphyry Cu-Au and situated in the	Undrilled targets next door to the Peak Gold Mines.
Macquarie Arc Ordovician host rocks with historic high-	Several priority geophysical anomalies and gold in lag up
grade copper mines that graded up to 23% Cu.	to <b>1.55g/t Au.</b>
Au-Ag Bauloora (EL8994, EL9464) <u>Newmont JV</u> One of NSW's largest low-sulphidation, epithermal systems with a 27km <sup>2</sup> epithermal vein field.	Au Harden (EL9657) Large historical high-grade quartz-vein gold mineralisation. Drilling includes <b>3.6m at 21.7g/t Au</b> 116m and <b>2m at 17.17g/t Au</b> from 111m.
Cu-Au Glenlogan (EL9614) <u>S2 Resources JV</u> Large, undrilled magnetic anomaly underneath Silurian cover located 55kms from Cadia Valley.	Au-Cu Fontenoy (EL8995) <u>Earth AI JV</u> Significant PGE, Au and Cu anomalism defined in soil sampling and drilling. Significant drill intercepts include 120m @ 0.3g/t PGE from 298, and 79m at 0.27% Cu from 1.5m.

#### Cu-Au Thomson (EL9190, EL9194, EL9728)

Prospective for intrusion-related gold and copper systems the project contains numerous 'bullseye' magnetic and gravity anomalies that remain untested.

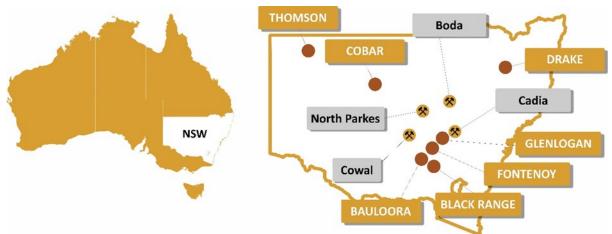


Figure 10: Location of Legacy Minerals' Projects in NSW, Australia, and major mines and deposits





# Appendix 1 – Drill log vein summaries

Reference	Estimated Vein %	Estimated Sulphide %	From (m)	To (m)	Preliminary Observations - nature of mineral occurrence, mineral identification and estimated sulphide proportion		
Figure 2	90	10	419.8	419.9	Qtz vein with apy (10%)		

Observation codes: qtz – quartz, cpy – chalcopyrite, hem – hematite, py – pyrite, po – pyrrhotite, apy - arsenopyrite.

# Appendix 2 – Drill hole collar details

Hole ID	Northing (MGA94 z55)	Easting (MGA94 z55)	Dip	Azimuth (True North)	End of Hole (m)
CUTBD02	6606900	249800	-63	010	463.1





## **Endnotes**

<sup>1</sup> ASX Release LGM, 16 December 2024, Over 100% Increase in Historical Mines identified at Drake
<sup>11</sup> ASX Release URM, 25 June 2012 *Mt Carrington Gold-Silver Project Regional Exploration Drilling Update* <sup>12</sup> ASX Release LGM, 16 September 2025, *29% Antimony Rock Chips Identified in Drake Project Review* <sup>14</sup> ASX Release LRV, 11 September 2024 *New World Metals Presentation* <sup>15</sup> ASX Release LGM, 9 December 2024 *Thomson Drill Targets Announcement 4 December 2024 - Amended* <sup>14</sup> ASX Release LGM, 9 December 2024 *Thomson Drill Targets Announcement 4 December 2024 - Amended* <sup>16</sup> ASX Release LGM, 9 December 2022 *New High-Grade Gold Assays Returned Across Bauloora* <sup>16</sup> ASX Release LGM, 25 November 2024, *Drilling underway at the Bauloora Project - Amended* <sup>16</sup> ASX Release S2R, 13 January 2025 *S2 STARTS 2025 WITH EXPLORATION ON MULTIPLE FRONTS* <sup>17</sup> ASX Release S2R, 13 January 2025 *S2 STARTS 2025 WITH EXPLORATION ON MULTIPLE FRONTS*



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