QUARTERLY REPORT

DECEMBER 2023 ASX:LEG | 29 JANUARY 2024

LEGEND MINING LIMITED

ASX Symbol: **LEG**

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Mr Mark Wilson
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Mr Oliver Kiddie
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PROJECTS

Rockford - Fraser Range:

Nickel-Copper (Ni-Cu)
Copper-Zinc-Silver (Cu-Zn-Ag)
Gold (Au)

HIGHLIGHTS

- **Cash $11.6M* at 31 December 2023**
- **R&D cash refund of $3.08M received 25 January 2024**
- **Preliminary modelling of the new High-Power Fixed Loop Electro-Magnetics (HPFLTEM) survey completed over the entire Octagonal Intrusive Complex (OIC) identifies three conductors interpreted to be related to nickel-copper mineralisation**
- **Reprocessed seismic combined with SensOre Artificial Intelligence/Machine Learning technology (AI/ML) generated data defines new nickel-copper sulphide drill target at Mawson**
- **Innovative Moving Loop Electro-Magnetics (MLTEM) surveys finalised for new highly ranked regional targets**

OVERVIEW

Legend enters 2024 in a position of strength. The R&D cash refund received on 25 January 2024 gives our treasury a balance of +$14M, a very healthy position.

Our Rockford project boasts the Mawson prospect with a MRE of 1.45Mt @ 1.14%Ni, 0.74%Cu, 0.07%Co** and brownfields exploration upside recently validated by the AI/ML Sensor work detailed in this report. In addition, we have the highly prospective Octagonal prospect and regional prospects including Magnus.

Despite the recent downturn in the share price, our top 20 shareholders maintain a very healthy 62.8% of the register. This number was 62.9% at 8 March 2023, the time of our annual report, demonstrating belief in our strategies despite a period of negativity in the nickel market.

The Legend team is dedicated to making the next commercial discovery in the Fraser Range and maximising all the Company's assets to the benefit of all shareholders.

*Excludes R&D cash refund

**See ASX Announcement 2 February 2023

ROCKFORD PROJECT (Fraser Range District)
Nickel-Copper, Copper-Zinc-Silver, Gold

Legend's Rockford Project is located in the highly prospective Fraser Range district of Western Australia and is considered prospective for mineralisation styles including magmatic nickel-copper, VMS zinc-copper-silver and structurally controlled gold.

The Rockford Project comprises 11 granted exploration licences covering a total area of 2,532km2 (see Figure 1). A detailed breakdown of ownership, area and manager is given below:

- Legend (100%) 109km2
- Legend (70%)/Creasy Group (30%) two JVs covering 1,771km2 with Legend manager
- IGO (60%)/Creasy Group (30%)/Legend (10% free carry) JV covering 634km2 with IGO manager
- IGO (70%)/Legend (30% free carry) JV covering 18km2 with IGO manager

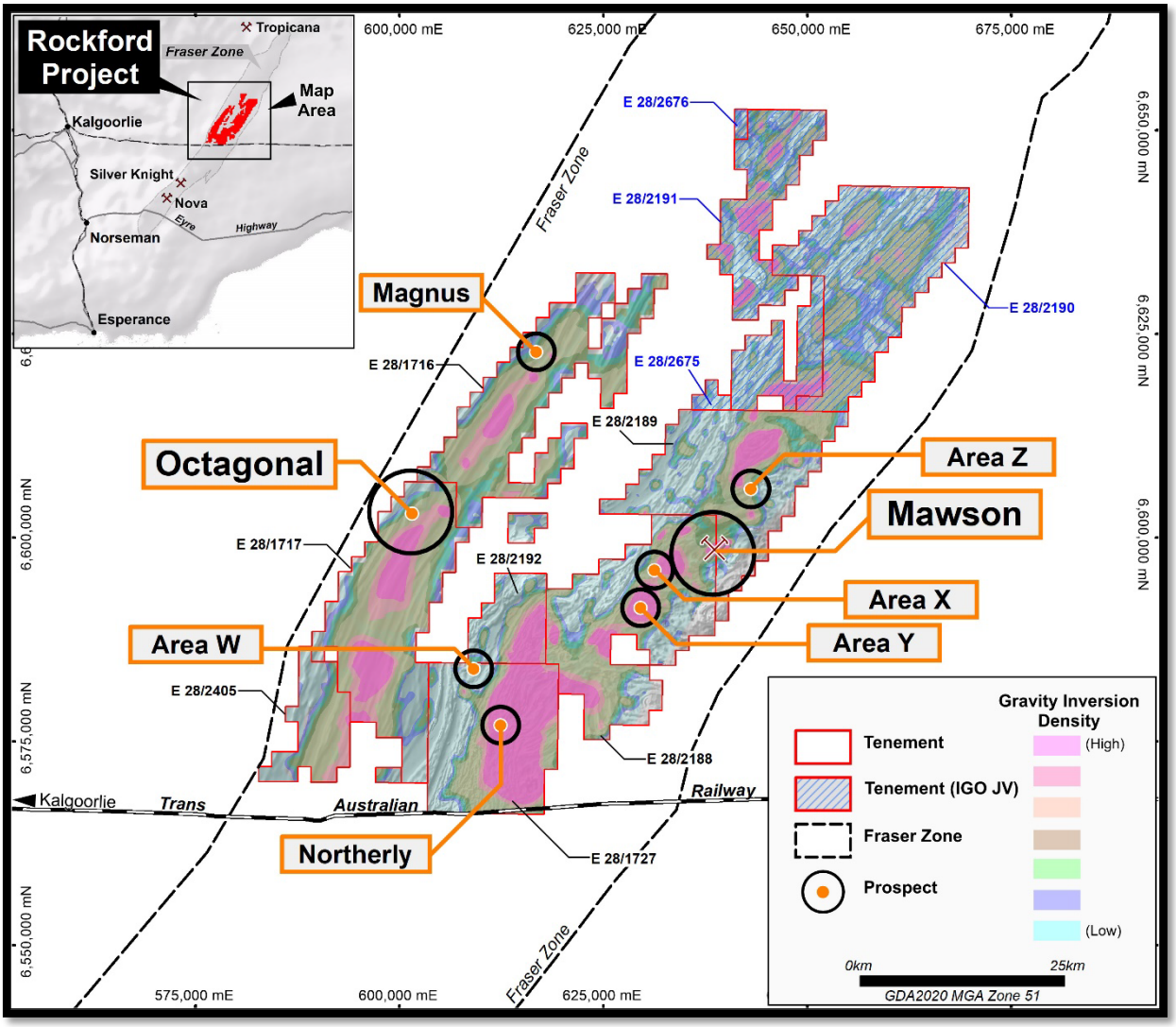

Figure 1: *Rockford Project with current prospect locations and target areas over regional gravity inversion*

Octagonal Prospect

Highpower EM Geophysical Services Pty Ltd completed the maiden HPFLTEM survey at Octagonal during the December 2023 Quarter. The HPFLTEM survey data acquisition was severely hindered by atmospheric conditions, resulting in unanticipated delays. The final data has been received and preliminary modelling conducted.

Four preliminary conductors have been identified, with three interpreted to relate to extensions of Ni-Cu sulphide mineralisation encountered in proximal drillholes (see Figures 1, 2 and 3, and Table 1). Preliminary modelling suggests the identified conductors are complex, with final models subject to refinement post receival and integration of additional data.

Conductor 1 is located down dip along the intrusion contact, proximal to mineralisation intersected in OCT0184 and OCT0190 (see Figure 3).

Conductor 2 is intersected at the top edge by OCT0005, relating to a zone of blebby through semi-massive Ni-Cu sulphide (see Photo 1).

Conductor 3 is the southern extension of a zone of remobilised semi-massive Ni-Cu sulphide intersected in OCDD003.

Conductor 4 is a deep, low conductivity feature that aligns with the seismic feature interpreted to be the feeder structure at the base of the OIC.

Photo 1: *Diamond drill core tray from OCT0005 with visual Ni-Cu sulphide mineralisation. OCT0005 intersects the top edge of conductor 2 .*

The channel 32 data identified a strong conductive source extending to the east of the completed survey area (see magenta zone in Figure 2). This area is of interest as it is the interpreted extension of the Octagonal intrusion based on completed drilling coupled with seismic and structural interpretation. Encouragingly, diamond drillholes OCT0189 and OCDD004 both intersected Ni-Cu sulphide within fertile ultramafic sills proximal to the strong conductive source, confirming mineralised intrusion occurs outside the main OIC body. This is identical to the Nova-Bollinger mineralisation setting.

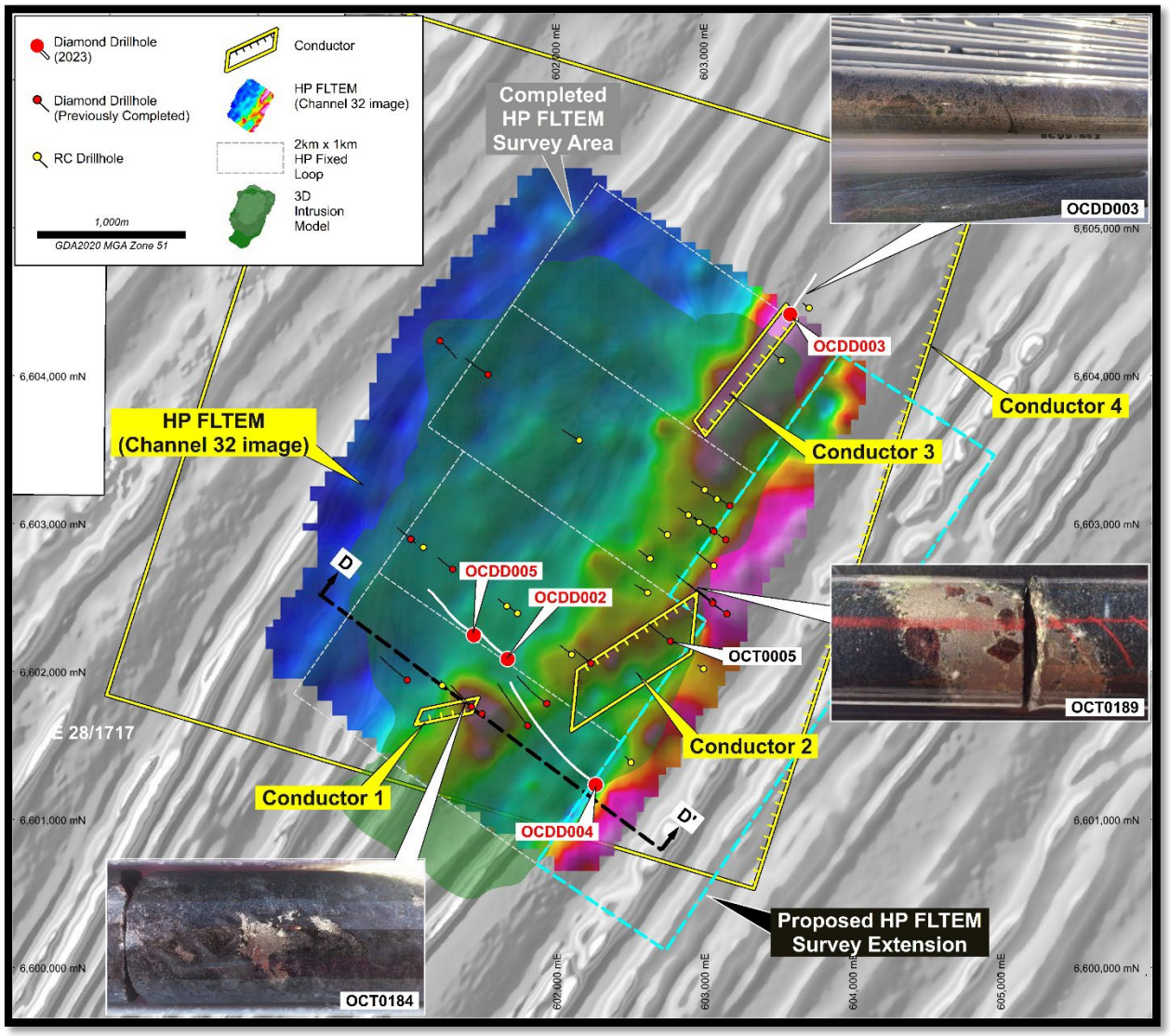

Figure 2: *Octagonal plan view showing completed HPFLTEM survey loops and preliminary conductors on channel 32HD imagery with the interpreted Octagonal intrusion model projected to surface on AMAG.*

Table 1: Octagonal HPFLTEM Conductor Parameters					
Conductor	**Conductance**	**Dimensions**	**Plate Orientation**	**Depth to Plate Top**	**Plate Dip**
Conductor 1	~2,000-3,000S	<400m x 400m	ENE-WSW	350-400m	60-75^0 NNW
Conductor 2	~200-400S	~1,000m x 1,000m	NE-SW	250-300m	65-75^0 SE
Conductor 3	~200-400S	~1,000m x 1,000m	NE-SW	250-300m	80-90^0 NW
Conductor 4	~75-125S	~5km x 5km	NNE-SSW	850-1,000m	20-30^0 WNW

Table 1: *Preliminary HPFLTEM conductors*

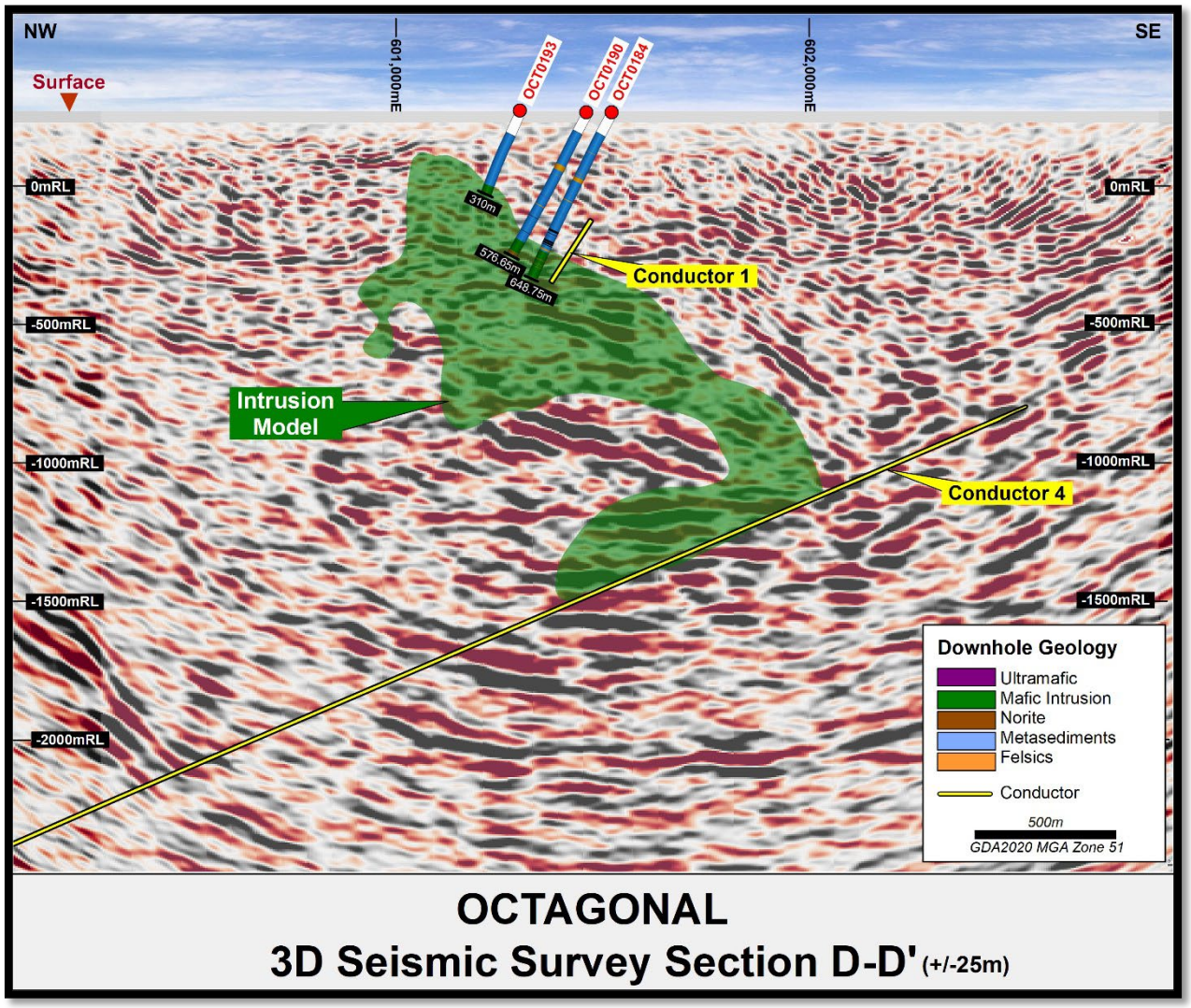

Figure 3: *Section D-D' showing drillholes OCT0193, OCT0190, and OCT0184 on seismic section and HPFLTEM conductors 1 and 4, downhole geology, and the Octagonal intrusion model.*

Given the strong response to the initial HPFLTEM survey and the newly identified zone to the east of the OIC, the survey will be extended. Survey design and planning will commence on completion of the final modelling from the completed HPFLTEM survey. Data acquisition of the extension survey is anticipated for March/April 2024.

Mawson Prospect

Reprocessing of the 3D seismic cube at Mawson has been completed by Velseis Processing Pty Ltd post the integration of downhole and handheld petrophysical property data. The resultant updated 3D seismic cube has refined and confirmed a target area north of the Mawson Ni-Cu-Co deposit, interpreted as the extension of the keel of the Mawson chonolith below the Mawson fault (see Figures 1, 4, and 5).

In addition, recently received SimClustTM machine learning data generated by SensOre Ltd has independently identified the keel target zone first defined by diamond drilling, structural interpretation, and new seismic modelling. The SimClustTM generated results identified a fingerprint geochemical signature in the keel zone identical to that of the Mawson deposit zone (see Figure 6). The working exploration model is the Mawson chonolith has intruded from depth, carrying and depositing Ni-Cu sulphides in traps proximal to and within the bounding stratigraphic package defined by the D9 conductor.

Diamond drillhole planning is now underway to test this highly prospective target.

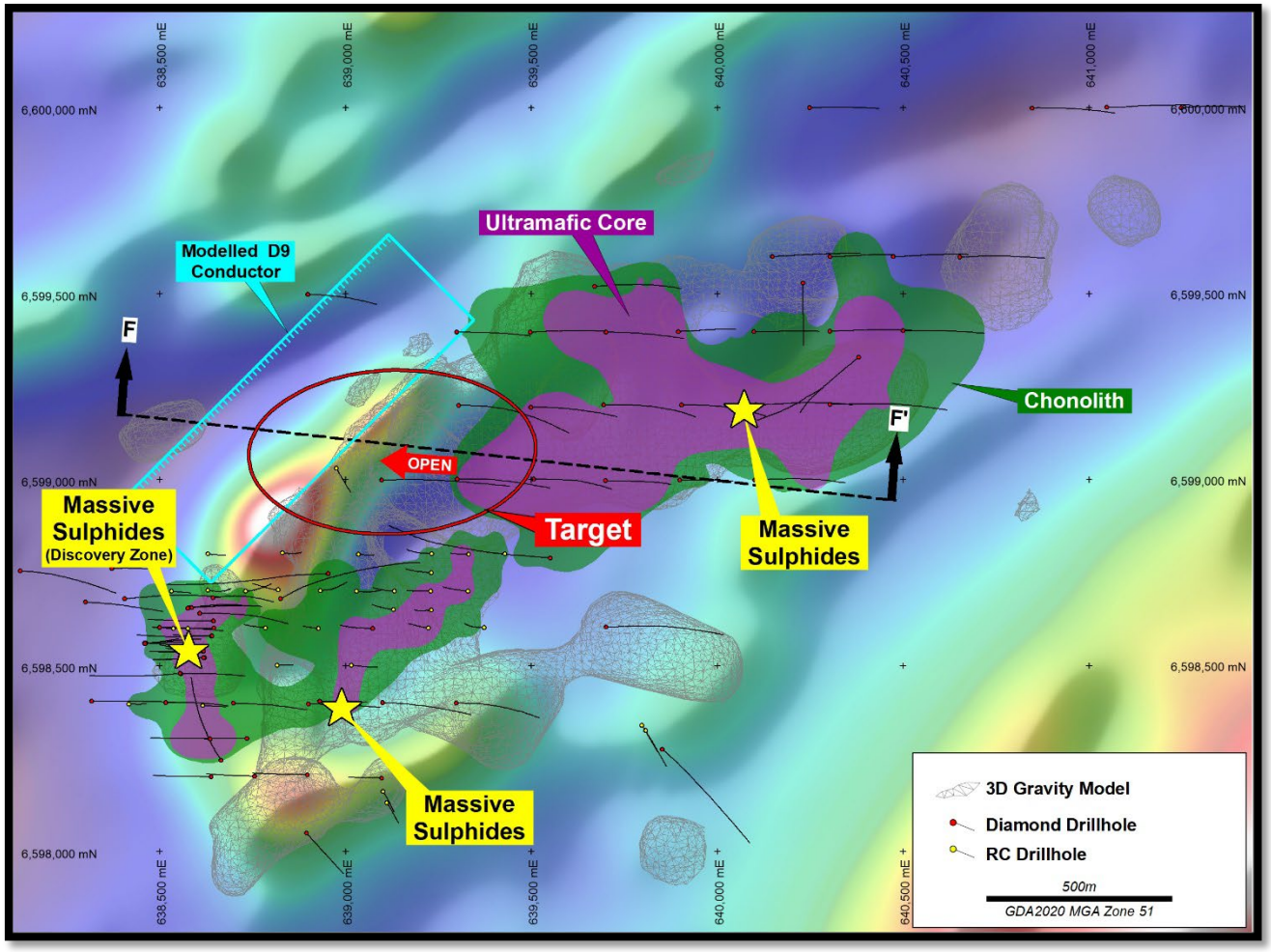

Figure 4: *Mawson chonolith showing defined target area on 3D gravity model and AMAG.*

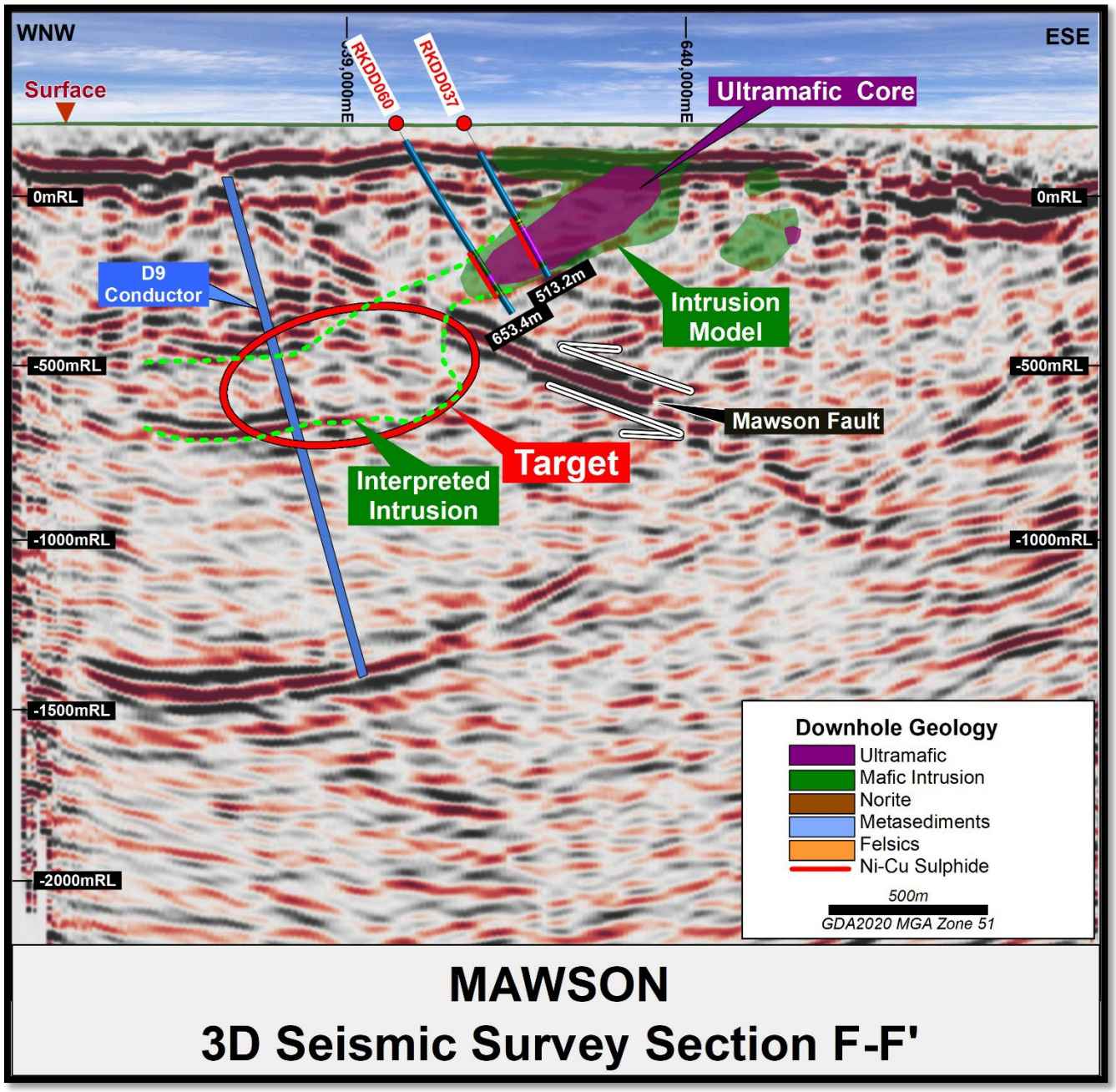

Figure 5: *Section F-F' showing drillholes RKDD037 and RKDD060 projected onto section with chonolith model and target area below the Mawson fault on reprocessed seismic section.*

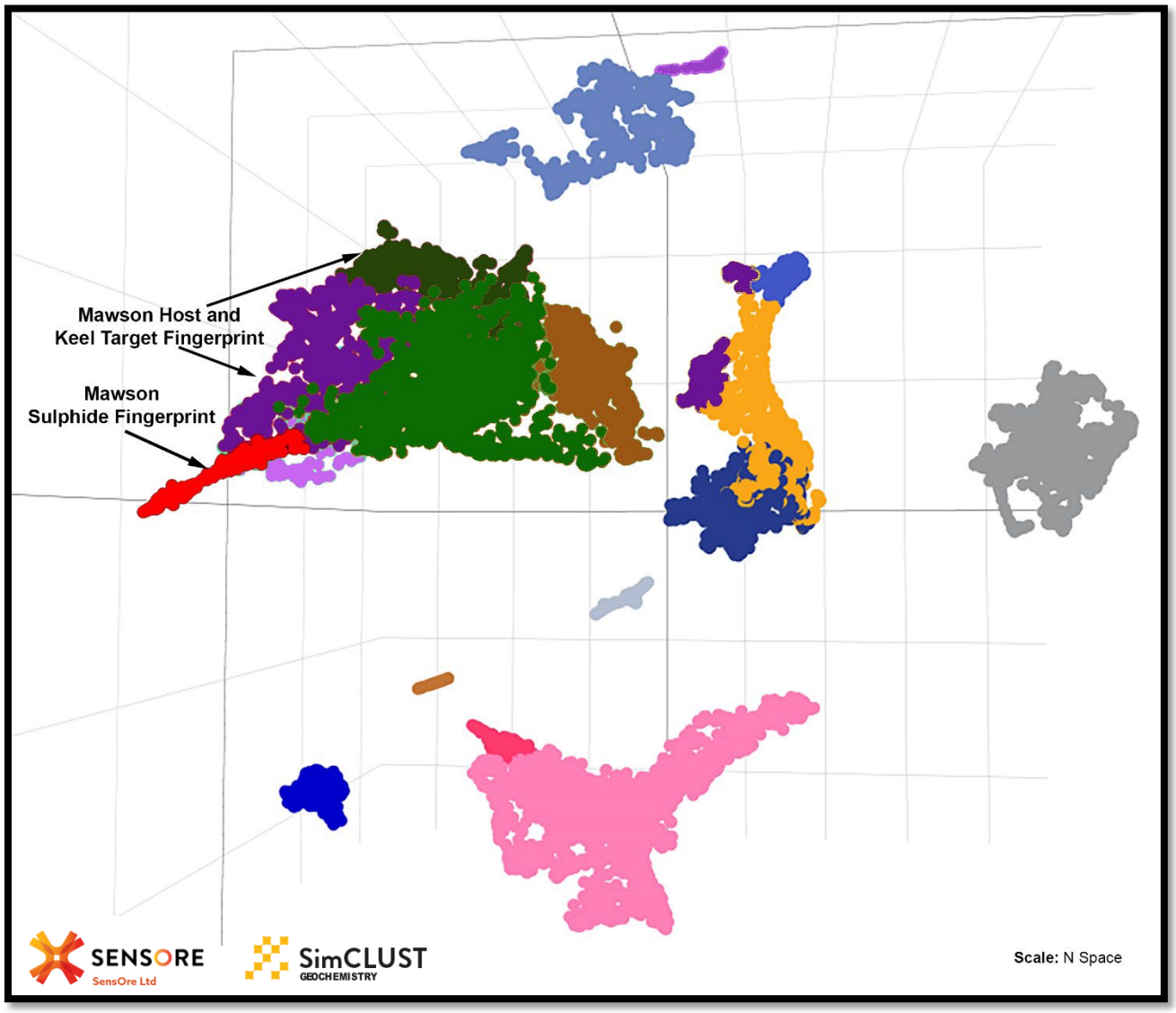

Figure 6: *SensOre SimClust™ N-space fingerprint analysis by class subsets of the Mawson geochemical dataset, depicting the relationship between prospective host lithologies and the Ni-Cu sulphide mineralisation population of the Mawson Ni-Cu-Co deposit.*

Regional Rockford

Magnus Prospect HPFLTEM Survey

Following the excellent response to the initial HPFLTEM survey technique completed across Octagonal, a maiden HPFLTEM survey has been designed for the highly ranked Magnus intrusion (see Figures 1 and 7). Prospectivity of the Magnus intrusion has been confirmed with the single diamond drillhole completed by Legend, suggesting a fertile host intrusion for Nova-Bollinger style Ni-Cu sulphide deposits (*see ASX Announcement 20 September 2021*).

Survey design and planning has commenced, with data acquisition anticipated for April 2024 post the completion of the Octagonal HPFLTEM survey extension.

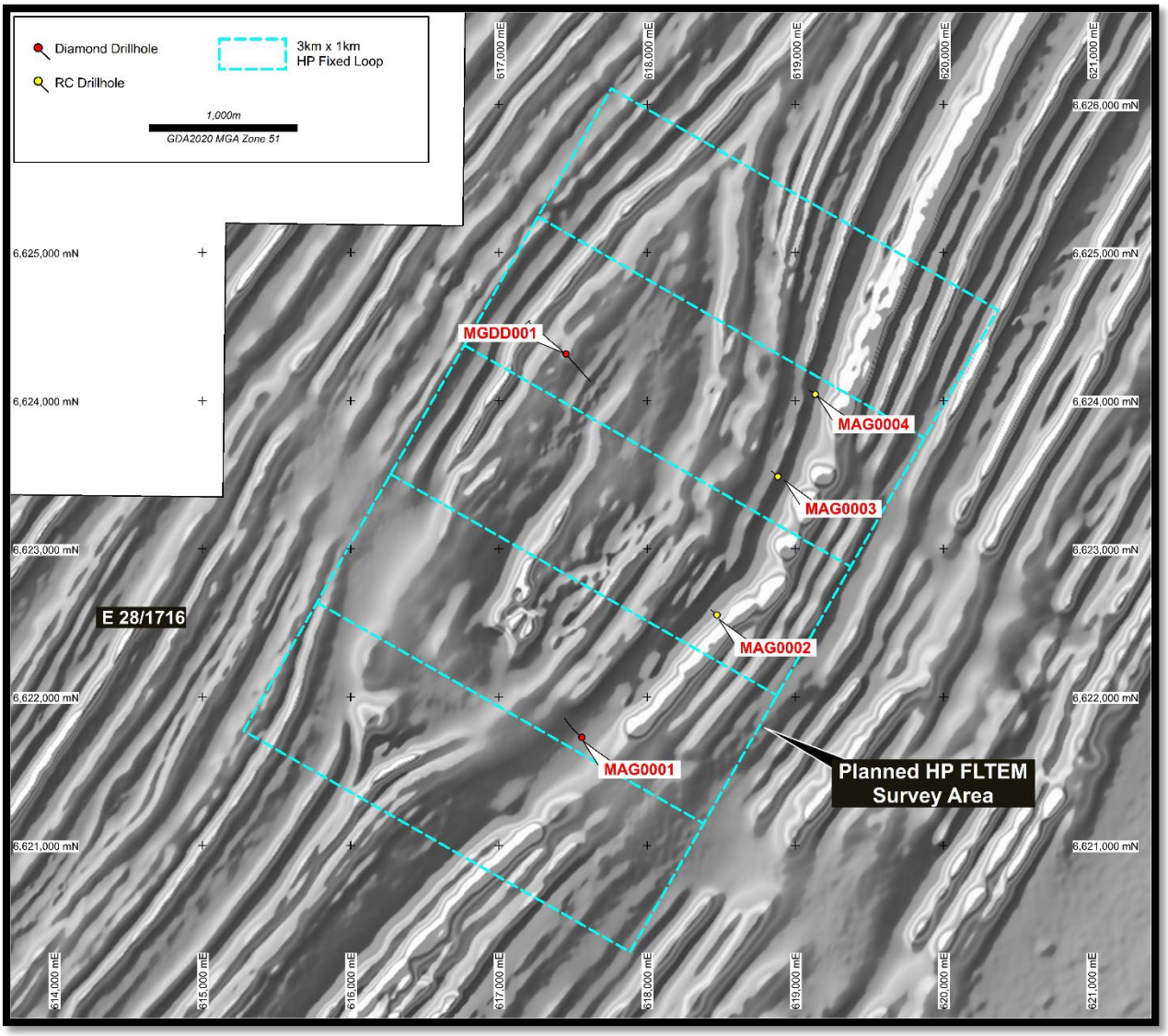

Figure 7: *Magnus Intrusion - plan view showing proposed HPFLTEM survey loops with completed diamond and RC drilling on AMAG.*

Innovative EM and AI/ML

Across the regional Rockford project, new data delivered though SimClustTM analysis has confirmed Areas X and Y as priority target areas (see Figure 8). The fingerprint geochemical signature defined by SimClustTM from completed aircore drilling has identified these areas prospective for Mawson type Ni-Cu intrusions. A new extensive innovative MLTEM survey has been designed to test for conductors.
In addition, MLTEM will be conducted north of Mawson across at Area Z – an area with no drilling, interpreted to host multiple mafic-ultramafic intrusions.

The MLTEM surveys are scheduled to commence in April 2024.

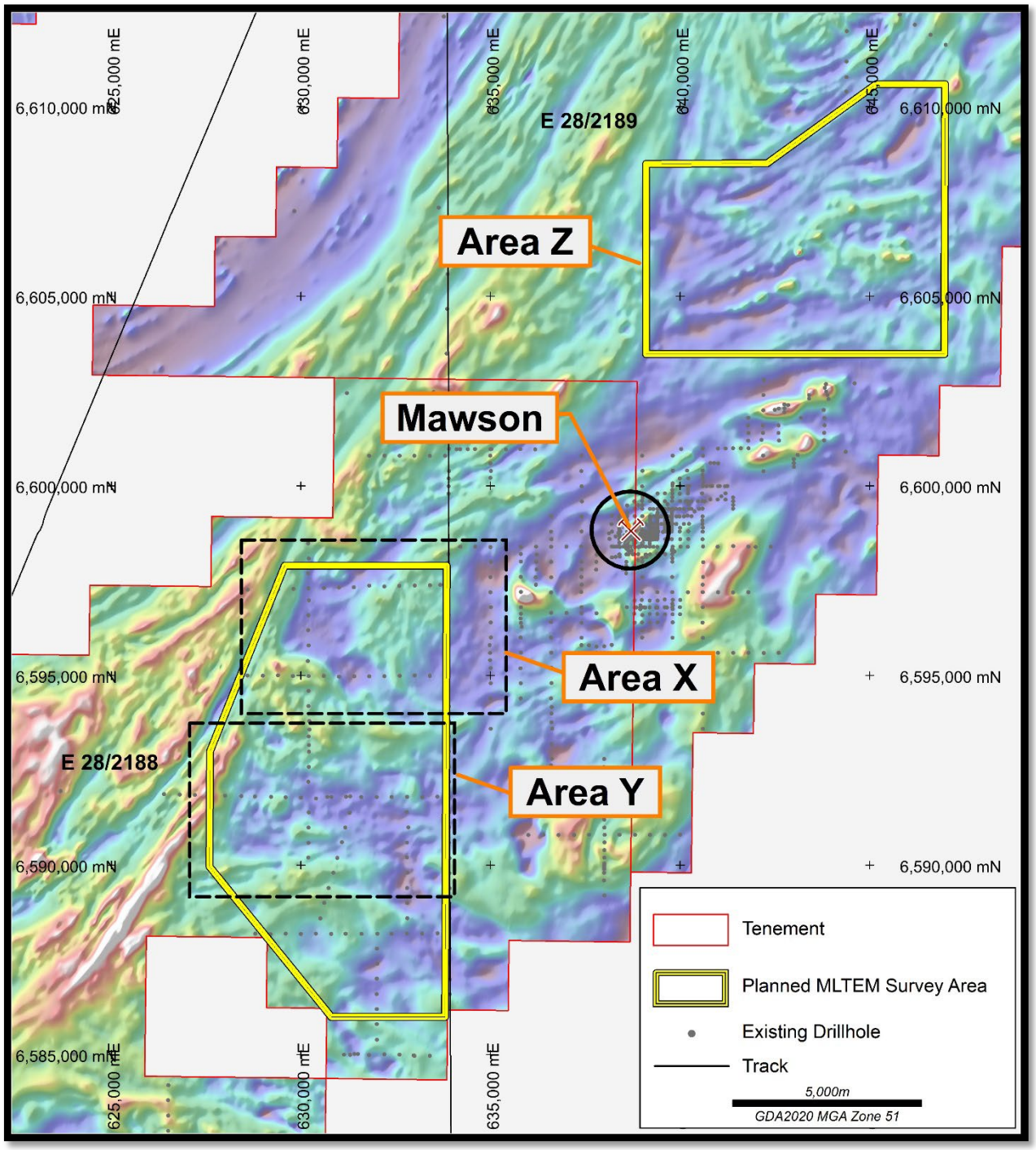

Figure 8: *Regional Rockford Target Areas with proposed MLTEM coverage on AMAG.*

Future Programmes

- HPFLTEM survey extension design at Octagonal
- HPFLTEM survey data acquisition at Octagonal scheduled for March/April 2024 to mitigate atmospheric delays
- Diamond drillhole target generation at Octagonal
- Diamond drillhole target generation at Mawson
- HPFLTEM survey at Magnus scheduled for April 2024 to mitigate atmospheric delays
- Regional innovative MLTEM surveys scheduled for April 2024
- Aircore drillhole target generation
- Data analysis ongoing identifying new and advancing existing areas

IGO Joint Venture

IGO Limited advised that field work completed on the JV tenements for the December 2023 Quarter included:

- Geochemical review of the Waddy Central target (E28/2191).
- Data review and reclassification of targets across the JV tenements.

CORPORATE

R&D Cash Refund Received

Legend Mining lodged its FY2023 tax return in December 2023 and subsequent to the end of December 2023 Quarter received a Research and Development cash refund from the Australian Taxation Office of $3.08 million on 25 January 2024.

ASX Additional Information

1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the December 2023 Quarter was $1,217,000. Full details of exploration activity during the December 2023 Quarter are set out in this report.

2. ASX Listing Rule 5.3.2: There was no substantive mining production and development activities during the December 2023 Quarter.

3. ASX Listing Rule 5.3.5: Payments to related parties of the Company and their associates during the December 2023 Quarter: $197,000 - The Company advises that this relates to non-executive director's fees and executive directors' salaries and entitlements only. Please see Remuneration Report in the Annual Report for further details on Directors' remuneration.

Authorised by Oliver Kiddie, Managing Director.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Oliver Kiddie, a Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Legend Mining Limited. Mr Kiddie has sufficient experience that is relevant to the styles of mineralisation and types 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" (JORC Code). Mr Kiddie consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Legend's Exploration Results is a compilation of Exploration Results previously released to ASX by Legend Mining (3 October 2023, 7 December 2023, and 20 December 2023) and Mr Oliver Kiddie consents to the inclusion of these Results in this report. Mr Kiddie has advised that this consent remains in place for subsequent releases by Legend of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Shaun Searle, a Member of the Australian Institute of Geoscientists and a full-time employee of Ashmore Advisory Pty Ltd. Mr Searle has sufficient experience that is relevant to the styles of mineralisation and types 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" (JORC Code). Mr Searle consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All Mineral Resources figures reported in the ASX Announcement 2 February 2023 in Table 1 represent estimates at February 2023. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

Legend confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. Legend confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Forward Looking Statements

This announcement contains "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "outlook", "guidance" or other similar words, and include statements regarding certain plans, strategies and objectives of management and expected financial performance. Forward-looking statements are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. These forward-looking statements are based upon a number of estimates, assumptions and expectations that, while considered to be reasonable by Legend Mining Limited, are inherently subject to significant uncertainties and contingencies, involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Legend Mining Limited and any of its officers, employees, agents or associates.

Actual results, performance or achievements may vary materially from any projections and forward-looking statements and the assumptions on which those statements are based. Exploration potential is conceptual in nature, to date there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. Readers are cautioned not to place undue reliance on forward-looking statements and Legend Mining Limited assumes no obligation to update such information made in this announcement, to reflect the circumstances or events after the date of this announcement.

Visit www.legendmining.com.au for further information and announcements.

For more information:

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Managing Director
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Appendix 1 - Tenement Schedule as at 31 December 2023

Mining Tenements

Tenement Reference	Location	Interest at beginning of Quarter	Acquired / Withdrawn	Interest at end of Quarter	Comments
E28/1716	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/1717	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/1718	Fraser Range, Western Australia	70%	Withdrawn	0%	70:30 JV
E28/1727	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2188	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2189	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2190	Fraser Range, Western Australia	10%	N/A	10%	10:60:30 JV
E28/2191	Fraser Range, Western Australia	10%	N/A	10%	10:60:30 JV
E28/2192	Fraser Range, Western Australia	70%	N/A	70%	70:30 JV
E28/2405	Fraser Range, Western Australia	100%	N/A	100%	100% Legend
E28/2675	Fraser Range, Western Australia	30%	N/A	30%	30:70 JV
E28/2676	Fraser Range, Western Australia	30%	N/A	30%	30:70 JV

Farm-In or Farm-Out Arrangements

Tenement Reference	Location	Interest at beginning of Quarter	Acquired / Withdrawn	Interest at end of Quarter	Comments
None	N/A	N/A	N/A	N/A	N/A

Appendix 2 – Summary Drill Log of Ni-Cu Mineralisation

Hole	Interval	Sulphide Mode	Sulphide Type	Sulphide % (Visual Estimate)
OCT0005	630.9 - 635.8	Disseminated & Blebby	Pyrrhotite-chalcopyrite-pentlandite	1% - 5%
OCT0005	635.8 - 637.1	Matrix	Pyrrhotite-chalcopyrite-pentlandite	20% - 40%
OCT0005	662.95 - 663.1	Semi Massive	Pyrrhotite-chalcopyrite-pentlandite	40% - 80%
OCT0005	663.1 - 664	Disseminated & Blebby	Pyrrhotite-chalcopyrite-pentlandite	1% - 5%
OCT0189	279.95 - 282.68	Disseminated & Blebby	Pyrrhotite-chalcopyrite-pentlandite	1% - 5%
OCT0189	282.68 - 282.75	Massive	Pyrrhotite-chalcopyrite-pentlandite	> 80%

Cautionary Statement: *The sulphide percentage is a visual estimate of total sulphide. Visual estimates should never be considered a proxy or substitute for laboratory analysis 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.*
Legend regularly uses a portable XRF (pXRF) analyser to screen diamond drill core for mineralisation prior to cutting and sampling. This allows for understanding of the distribution of mineralisation prior to sampling to better ensure that the sampled core is representative of the type and style of mineralisation. Readings are obtained and recorded for future reference. The pXRF provides confirmation that mineralisation is present however it is not an accurate determination of the elemental concentration within the sample analysed. Limitations include; very small analysis window, possible inhomogeneous distribution of mineralisation, analytical penetration depth and possible effects from irregular rock surface. The pXRF readings are subject to confirmation by chemical analysis from an independent laboratory.

Appendix 3 – Drillhole Details

Hole	Type	MGA2020-East	MGA2020-North	RL	Azimuth	Dip	Total Depth
OCDD002	DD	601,685	6,602,095	267	306	-70	1,031.0m
OCDD003	DD	603,595	6,604,425	263	034	-65	909.4m
OCDD004	DD	602,280	6,601,245	266	300	-65	1,710.8m
OCDD005	DD	601,457	6,602,256	267	302	-70	1,662.0m
OCT0005	DD	602,786	6,602,204	271	305	-75	720.6m
OCT0184	DD	601,512	6,601,715	263	305	-64	648.75m
OCT0189	DD	603,072	6,602,462	266	304	-65	504.6m
OCT0190	DD	601,441	6,601,761	263	304	-60	576.65m
OCT0193	RC	601,244	6,601,906	263	304	-65	310.0m
MGDD001	DD	617,452	6624,315	261	140.4	-60.9	597.3m
MAG0001	DD	617,559	6621,728	250	305.4	-75	700.1m
MAG0002	RC	618,471	6622,554	250	305.4	-75	220.0m
MAG0003	RC	618,881	6623,488	230	305.4	-75	202.0m
MAG0004	RC	619,135	6624,043	240	305.4	-75	200.0m
RKDD037	DD	639,300	6599,001	198.5	90.6	-60.1	513.2m
RKDD060	DD	639,096	6598,998	197.5	90.4	-59.7	653.4m

Co-ordinates GDA2020 Zone 51

Appendix 4 - Legend Field Logging Guidelines

Sulphide Mode	Percentage Range
Disseminated & blebby	1-5%
Heavy Disseminated	5-20%
Matrix	20-40%
Net-Textured	20-40%
Semi-Massive	>40% to <80%
Massive	>80%