

20 December 2023

Seismic and AI/ML technology delivers new targets at Mawson and greater Rockford Project

HIGHLIGHTS

- Reprocessed seismic combined with SensOre Artificial Intelligence/Machine Learning technology (AI/ML) generated data defines new nickel-copper sulphide drill target at Mawson
- Preliminary design completed for a new High-Power Fixed Loop Electro-Magnetics (HPFLTEM) survey across the fertile Magnus intrusion
- Innovative Moving Loop Electro-Magnetics (MLTEM) surveys finalised for new highly ranked regional targets

Legend Mining Limited (Legend) is pleased to update exploration activities within the Rockford Project, Fraser Range, Western Australia (see Figure 7).

Legend Executive Chair, Mr Mark Wilson said: "Whilst the main focus of fieldwork this year has been at Octagonal, this announcement is a reflection of the detailed work that has been progressing at Mawson and regional Rockford prospects. The drill target at Mawson is particularly exciting as the area is a confirmation of geology, geochemistry and geophysics. There is plenty to look forward to in 2024."

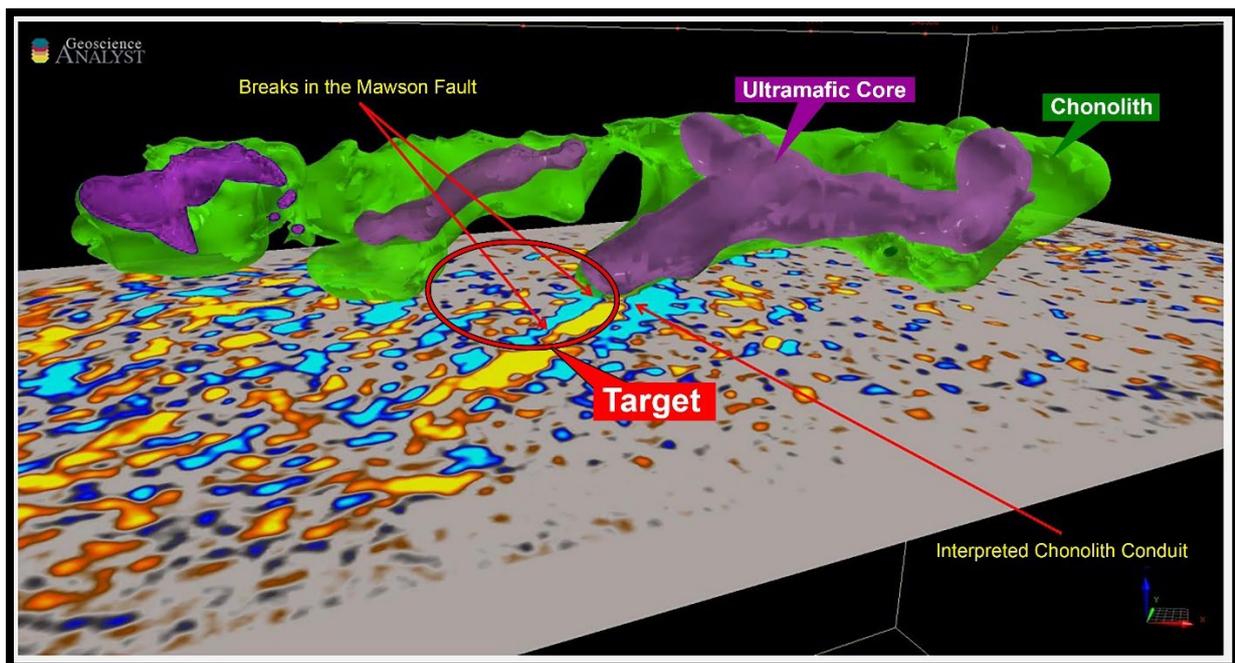


Figure 1: Orthogonal view looking north-west of the Mawson chonolith model in 3D and defined drill target area with reprocessed seismic depth slice.

TECHNICAL DISCUSSION

Exploration efforts continue across Rockford, with the definition of new targets across known prospects and new target areas. Below is a summary of the ongoing exploration programmes across Mawson, Magnus, and Regional Rockford.

MAWSON

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, 2, and 3).

In addition, recently received SimClust™ 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 SimClust™ generated results identified a fingerprint geochemical signature in the keel zone identical to that of the Mawson deposit zone (see Figure 4). 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.

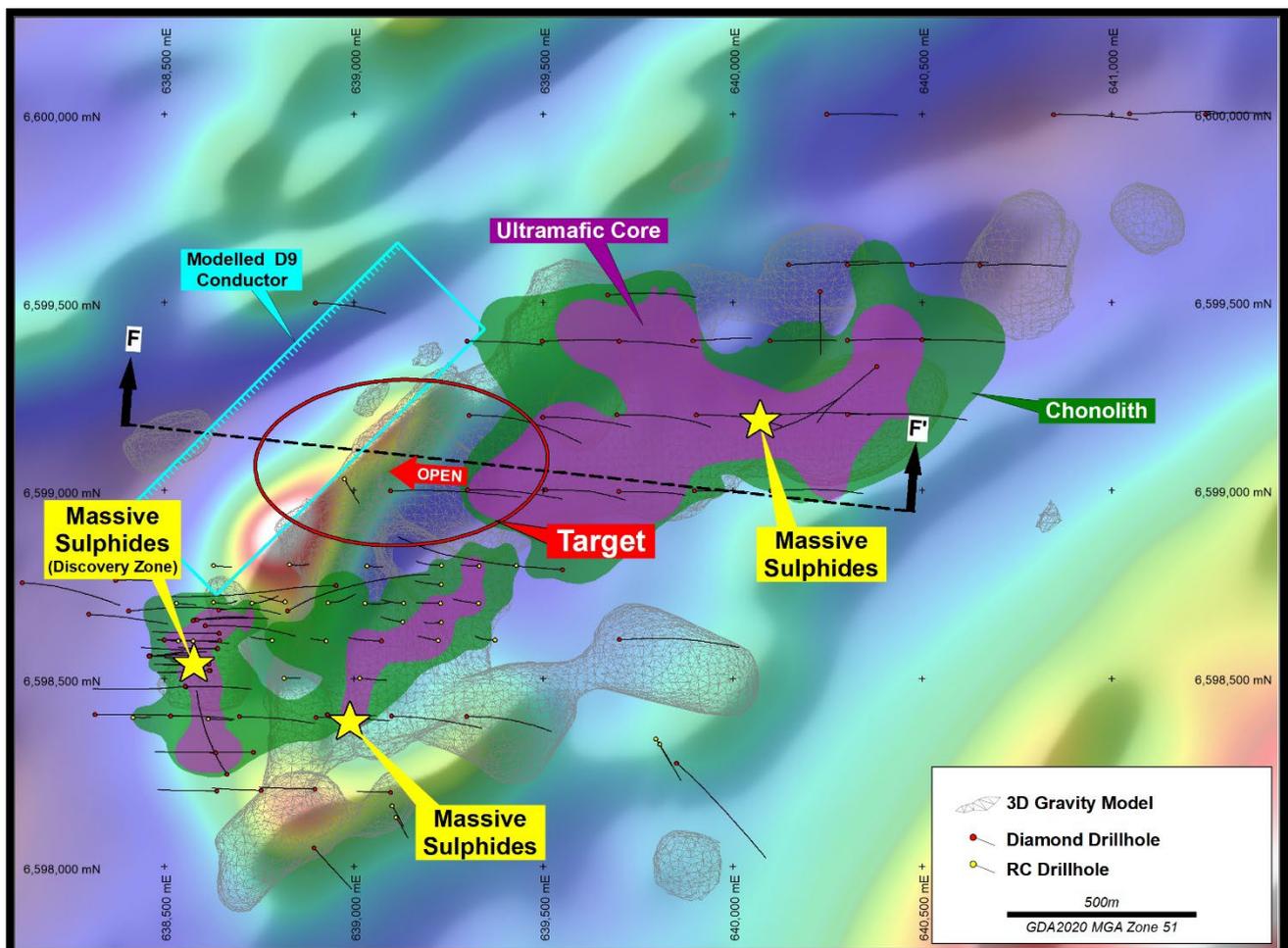


Figure 2: Mawson chonolith showing defined target area on 3D gravity model and AMAG.

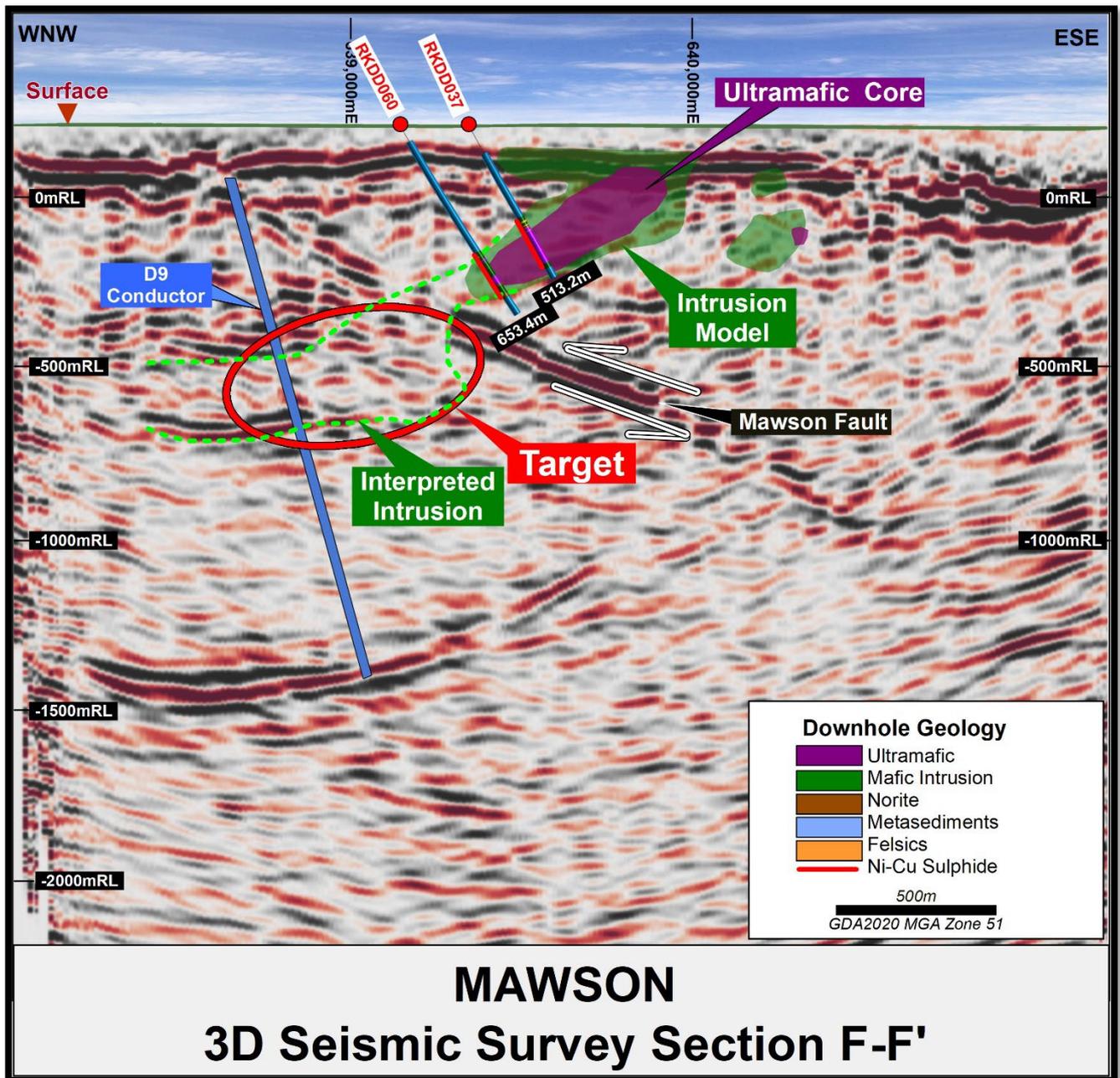


Figure 3: Section F-F' showing drillholes RKDD037 and RKDD060 projected onto section with chonolith model and target area below the Mawson fault on reprocessed seismic section.

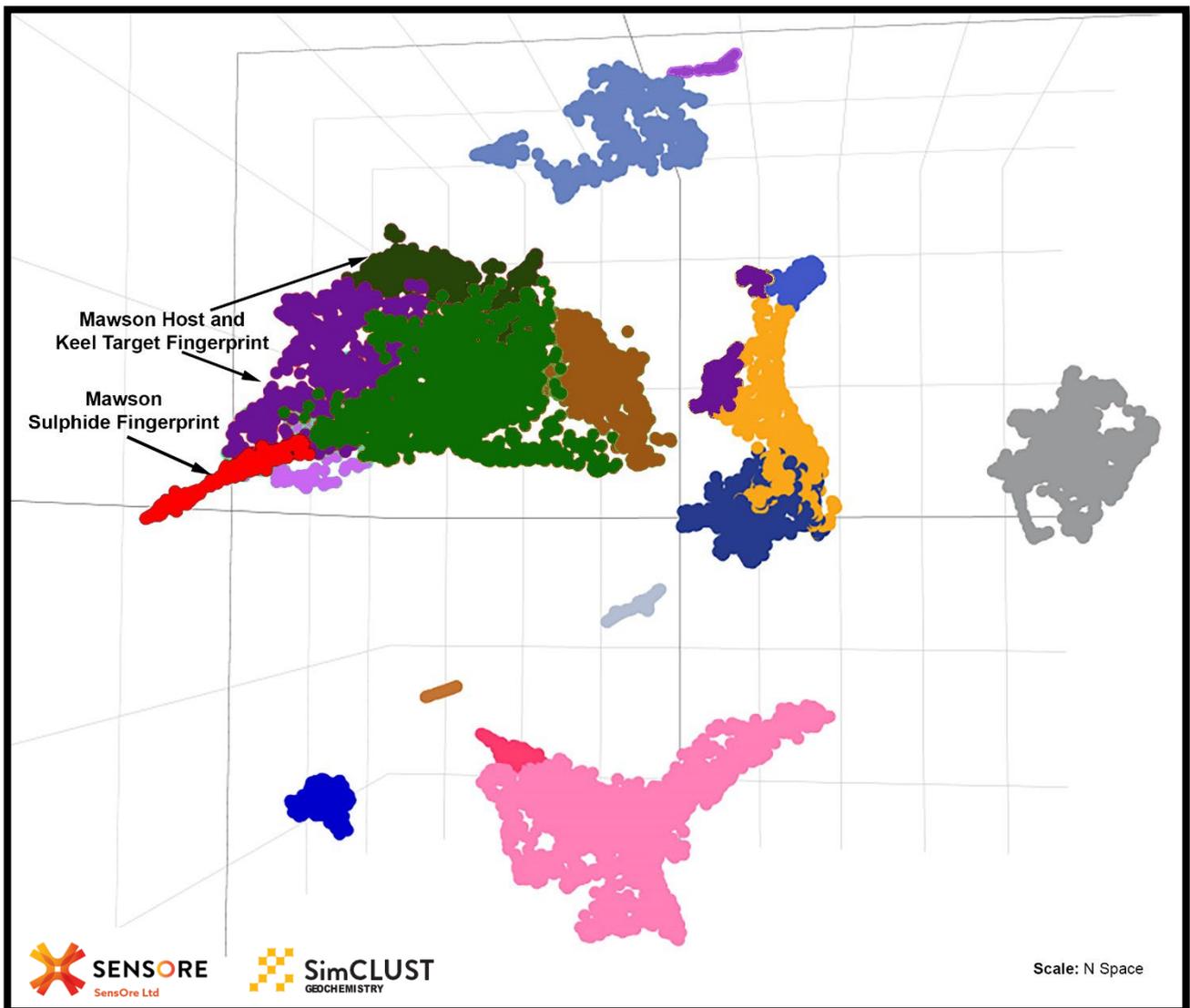


Figure 4: SensOre SimClust™ N-space fingerprint analysis by class subsets of the Mawson geochemical dataset, depicting the relationship between prospective host lithologies and the Ni-Cu sulphide mineralisation population of the Mawson Ni-Cu-Co deposit.

MAGNUS 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 Figure 5). 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.

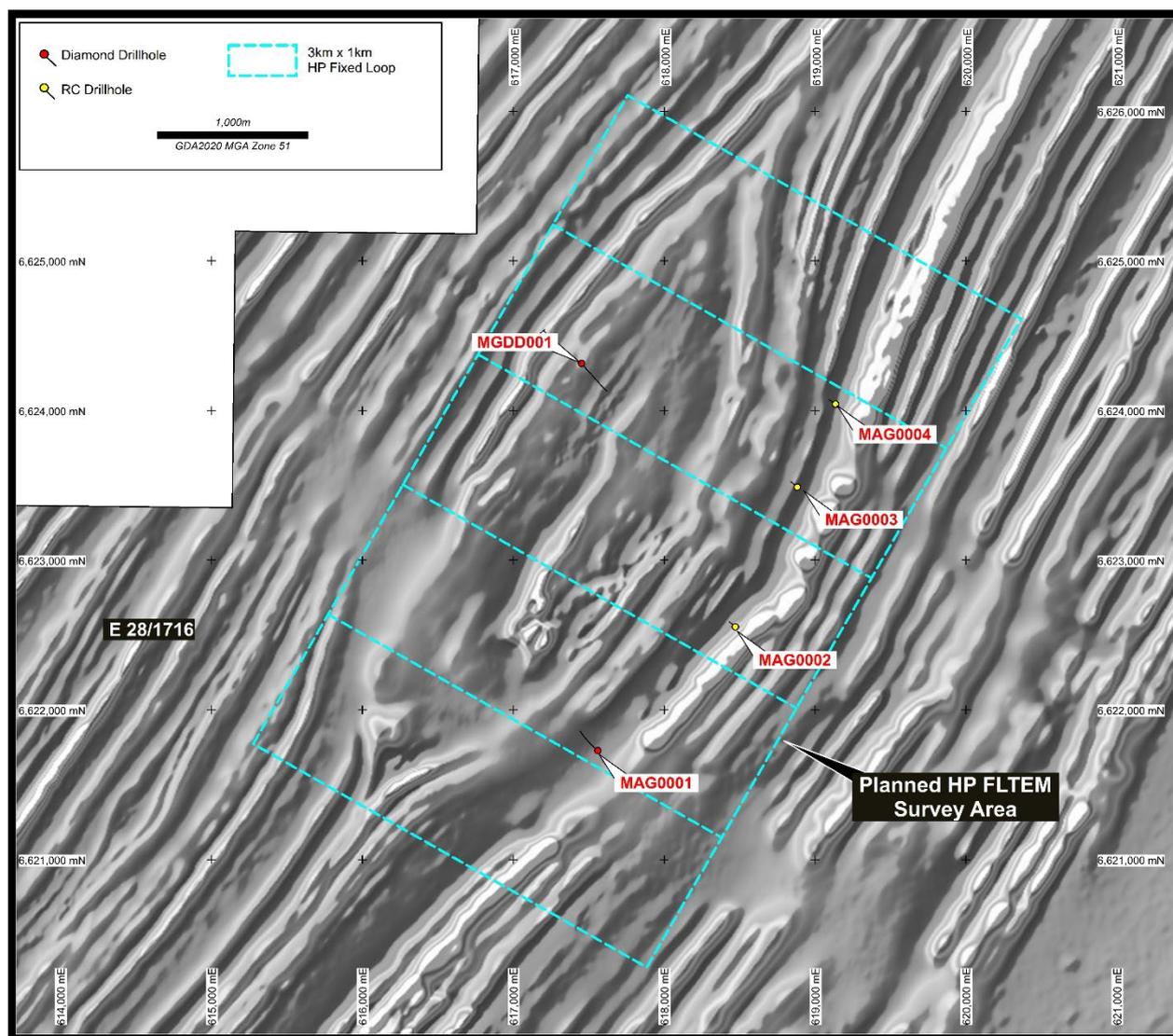


Figure 5: Magnus Intrusion - plan view showing proposed HPFLTEM survey loops with completed diamond and RC drilling on AMAG.

REGIONAL ROCKFORD

Across the regional Rockford project, new data delivered through SimClust™ analysis has confirmed Areas X and Y as priority target areas (see Figure 6). The fingerprint geochemical signature defined by SimClust™ 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.

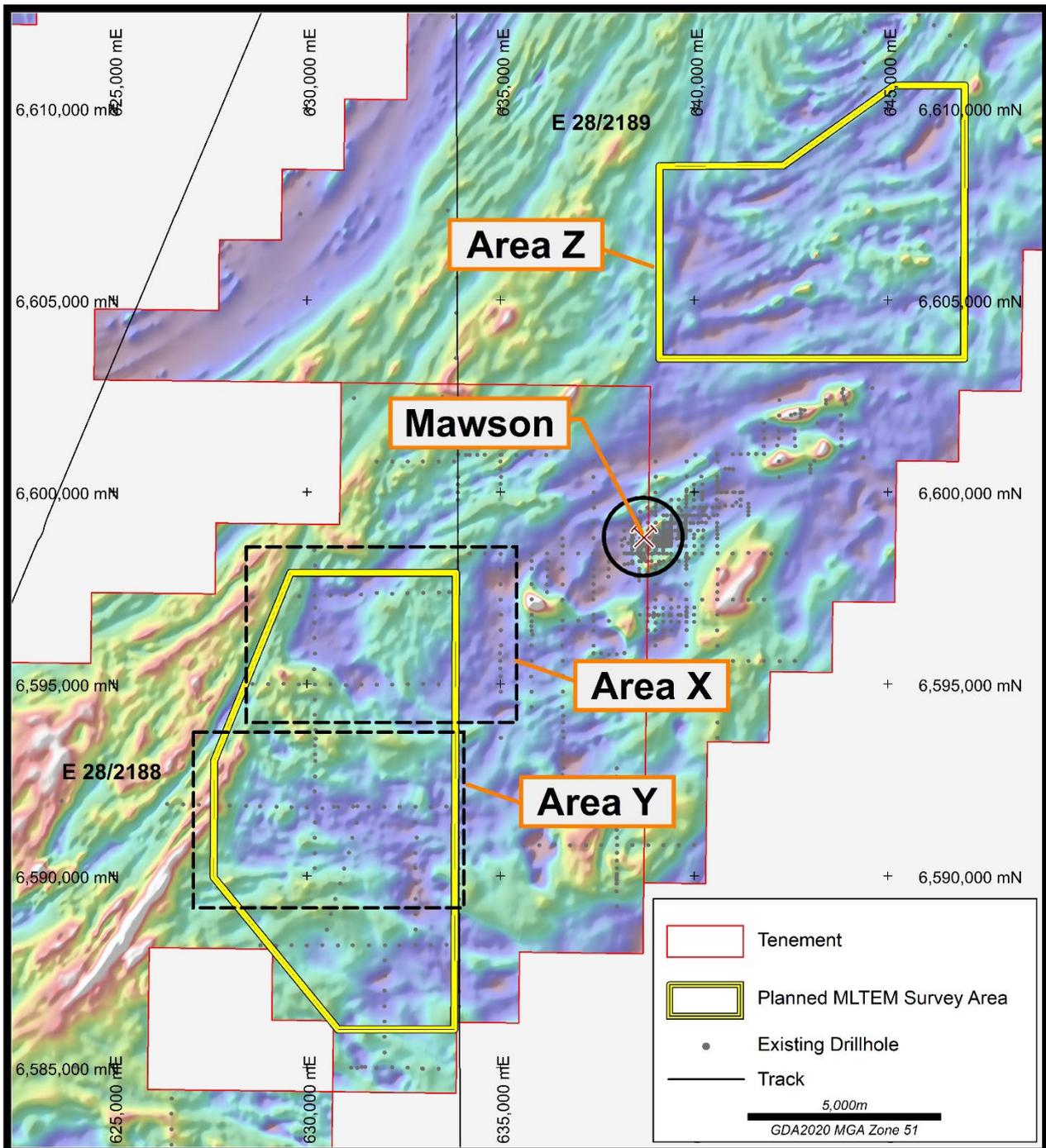


Figure 6: Regional Rockford Target Areas with proposed MLTEM coverage on AMAG.

FUTURE ROCKFORD PROGRAMMES

- Mawson diamond drill target generation
- HPFLTEM survey at Magnus scheduled for April 2024 to mitigate atmospheric delays
- Regional innovative MLTEM surveys scheduled for April 2024
- Aircore drillhole target generation

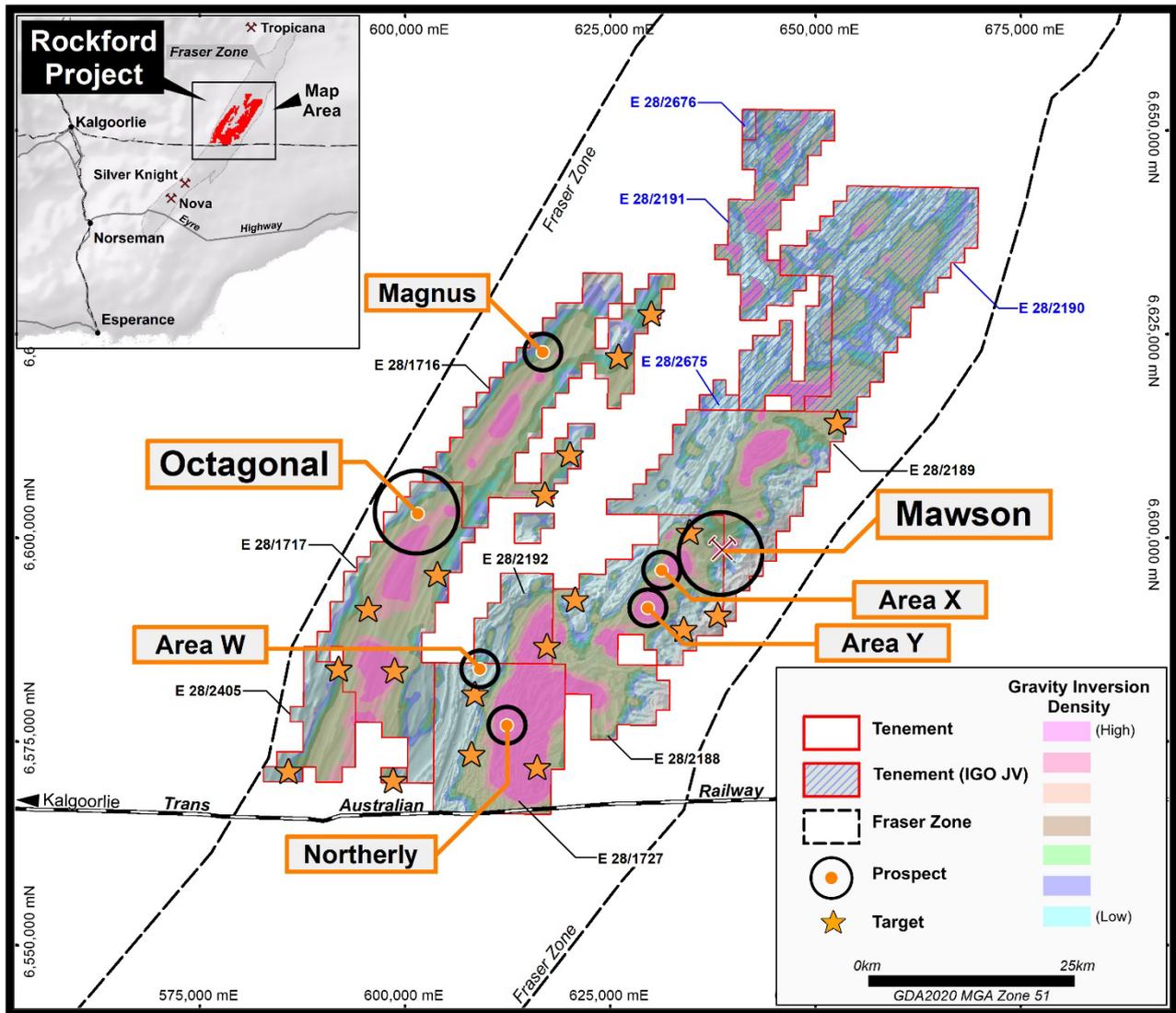


Figure 7: Rockford Project Prospect Locations on Gravity.

Authorised by Oliver Kiddie, Managing Director.

Appendix 1 – Magnus and Mawson Drillhole Details

Hole	MGA2020-East	MGA2020-North	RL	Azimuth	Dip	Depth (m)	Type
MGDD001	617452.8	6624315.3	261	140.4	-60.9	597.3	DD
MAG0001	617559.96	6621728.47	250	305.4	-75	700.1	DD
MAG0002	618471.96	6622554.47	250	305.4	-75	220	RC
MAG0003	618881.96	6623488.47	230	305.4	-75	202	RC
MAG0004	619135.96	6624043.47	240	305.4	-75	200	RC
RKDD037	639300.1	6599001.6	198.5	90.6	-60.1	513.2	DD
RKDD060	639096.5	6598998.7	197.5	90.4	-59.7	653.4	DD

Co-ordinates GDA2020 Zone 51

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Oliver Kiddie. Mr Kiddie is 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 previously released to ASX by Legend Mining (20 September 2021, 9 June 2022, 17 August 2022, and 15 September 2022). 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. 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.

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Appendix 2:

Legend Mining Ltd – Regional Exploration Programme - Rockford Project JORC Code Edition 2012: Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report. 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>HiSeis Pty Ltd conducted a ground 3D seismic survey at Mawson between 18 November and 8 December 2021, with survey details below.</p> <ul style="list-style-type: none"> Equipment area coverage: ~7.62 km² Total receivers: 8300 Total source points: 6012 Sample rate: 2 ms Record length: 3 s Source: INOVA AHV-IV (60000 lb) Source array: 1 x AHV-IV Source number: 2 ping pong <p>Recording Filters:</p> <ul style="list-style-type: none"> Hi-cut: 0.8 Nyquist set to 205 Hz Notch: out Diversity stack: no <p>Source Parameters:</p> <ul style="list-style-type: none"> Source spacing: 12.5 m nominal Sweep frequency: 6-160 Hz Sweep length: 20 s Sweep type: linear Source array: stacked Tapers: 500 ms Maximum source gaps: as required for safety <p>Receiver Parameters:</p> <ul style="list-style-type: none"> Group spacing: varies: 12 m (high-res) and 18 m (low-res) Geophone type: Quantum 5 Hz Case: land Frequency: 5 Hz Geophones per group: 1 Geophone spacing: varies: 12 m (high-res) and 18 m (low-res) <p>Velseis Processing Pty Ltd completed reprocessing of the Mawson 3D seismic survey data during October 2022 and May 2023, providing updated pre-stack time and depth migration information.</p> <p>Highpower EM Geophysical Services Pty Ltd will undertake high powered fixed loop electromagnetic (HPFLTEM) and moving loop electromagnetic (MLTEM) surveying over the Magnus prospect and regional target areas.</p>

Criteria	JORC Code Explanation	Commentary
		<p>HPFLTEM Details</p> <ul style="list-style-type: none"> • Loop Size: 2km x 1km single turn, 1km x 1km Figure 8 configuration • Line/Station Spacing: 250m spaced lines with 125m stations • Transmitter: HPEM HPTX (~200 amps) • Receiver: EMIT SMARTem24 • Sensor: HT SQUID LANDTEM 3 component B field sensor • Time base/freq.: 0.125-0.25Hz (1,000-2,000msec time base), 0.5-1.0msec ramp • Readings/Stacks: 2-3 repeatable readings, 64 stacks. <p>MLTEM Details</p> <ul style="list-style-type: none"> • Loop Size: 300 x 300m, single turn • Line/Station Spacing: 500/250m spaced lines with 100m stations • Transmitter: HPEM HPTX (200 amps) • Receiver: EMIT SMARTem24 • Sensor: HT SQUID LANDTEM 3 component B field sensor • Time base/freq.: 0.25Hz (500msec time base), 0.5-1.0msec ramp <p>SensOre Ltd completed propriety SimClust™ and igROCK™ analysis of drillhole samples from the Mawson prospect during October-November 2023.</p> <ul style="list-style-type: none"> • No diamond drilling has been undertaken.
Drilling techniques	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> • <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> 	
Logging	<ul style="list-style-type: none"> • <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> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <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> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model,</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.

Criteria	JORC Code Explanation	Commentary
	<p><i>reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> • <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>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
<p>Location of data points</p>	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • The Magnus and Mawson drillhole collars were surveyed with a handheld GPS unit with an accuracy of $\pm 5\text{m}$ which is considered sufficiently accurate for the purpose of the drillhole. • All co-ordinates are expressed in GDA2020 datum, Zone 51. • Regional topographic control has an accuracy of $\pm 2\text{m}$ based on detailed DTM data.
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <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> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
<p>Orientation of data in relation to geological structure</p>	<ul style="list-style-type: none"> • <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> • <i>If the relationship between the drilling orientation and the</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.

Criteria	JORC Code Explanation	Commentary
	<i>orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> No diamond drilling has been undertaken.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Internal audits/reviews of seismic procedures were completed/managed during surveying by Terra Resources Pty Ltd. Reprocessing of the Mawson 3D seismic data was undertaken by external consultant Velseis Processing Pty Ltd.

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> The Rockford Project comprises seven granted exploration licences, covering 1,880km², (Legend manager). Rockford JV tenements: <ul style="list-style-type: none"> E28/2188, 2189, 2192 (70% Legend, 30% Rockford Metals Pty Ltd) E28/1716, 1717, 1727 (70% Legend, 30% Ponton Minerals Pty Ltd). Legend 100%: E28/2405. The Project is located 280km east of Kalgoorlie mostly on vacant crown land with the eastern portion on Kanandah Pastoral Station. Tenements E28/1716, 1717, 1727, 2192, 2405 are covered by the Upurli Upurli Nguratja Native Title Claim. Tenements E28/2188, and E28/2189 are covered 20% and 85% respectively by the Untiri Pulka Native Title Claim with the remaining area covered by the Upurli Upurli Nguratja Native Title Claim. The tenements are in good standing and there are no known impediments.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Not applicable, not referred to.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The primary target is Nova style nickel-copper mineralisation hosted in mafic/ultramafic intrusives within the Fraser Zone of the larger Albany-Fraser Orogen. Secondary targets include VMS style zinc-copper-lead-silver mineralisation and structurally controlled Tropicana style gold.

Criteria	JORC Code Explanation	Commentary
<p>Drill hole Information</p>	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> • <i>dip and azimuth of the hole</i> • <i>down hole length and interception depth</i> • <i>hole length.</i> • <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> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
<p>Data aggregation methods</p>	<ul style="list-style-type: none"> • <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> • <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> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.
<p>Relationship between mineralisation widths and intercept lengths</p>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g.,</i> 	<ul style="list-style-type: none"> • No diamond drilling has been undertaken.

Criteria	JORC Code Explanation	Commentary
	<i>'down hole length, true width not known'.</i>	
Diagrams	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • Project location maps and proposed HPFLTEM and MLTEM survey plans have been included in the body of the report.
Balanced reporting	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • All significant results are reported.
Other substantive exploration data	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • Detailed high quality aeromagnetic and gravity datasets, aircore drilling, ground EM surveys and DHTM surveys have been used to target drilling. • Highpower EM Geophysical Services Pty Ltd completed high powered MLTEM surveying over the Magnus prospect in 2019. • Highpower EM Geophysical Services Pty Ltd completed HPFLTEM (2023) and MLTEM (2019) surveying over the Octagonal prospect. <p>MLTEM Details</p> <ul style="list-style-type: none"> • Loop Size: 300 x 300m, single turn • Line/Station Spacing: 500/250m spaced lines with 100m stations • Transmitter: HPEM HPTX (200 amps) • Receiver: EMIT SMARTem24 • Sensor: HT SQUID LANDTEM 3 component B field sensor • Time base/freq.: 0.25Hz (500msec time base), 0.5-1.0msec ramp <p>HPFLTEM Details</p> <ul style="list-style-type: none"> • Loop Size: 2km x 1km single turn, 1km x 1km Figure 8 configuration • Line/Station Spacing: 250m spaced lines with 125m stations • Transmitter: HPEM HPTX (~200 amps) • Receiver: EMIT SMARTem24 • Sensor: HT SQUID LANDTEM 3 component B field sensor

Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> • Time base/freq.: 0.125-0.25Hz (1,000-2,000msec time base), 0.5-1.0msec ramp • Readings/Stacks: 2-3 repeatable readings, 64 stacks.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>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> 	<ul style="list-style-type: none"> • Full integration of geological, structural, geophysical (including seismic), and geochemical data. • Plan further diamond drillholes at Mawson. • High-power surface FLTEM surveying at Magnus prospect. • High-power surface MLTEM surveying on regional targets. • Plan further EM surveys.