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## GEOPHYSICS HIGHLIGHTS >40KMS OF POTENTIAL GOLD BEARING STRUCTURES AT THE AUSTIN GOLD PROJECT

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### Highlights

- Extensive work by Musgrave Minerals (ASX:MGV) related to high-grade discoveries such as *Starlight*, which is adjacent to Silver City's Austin Gold Project, indicate that northwest-trending cross structures are the key geological parameter of gold deposits in the district.
  - Recent work by Silver City has also demonstrated that high-grade gold, including rock chips that returned up to 1,050 g/t Au, are also controlled by similar northwest trending gold-bearing quartz veins.
  - A significant breakthrough in the interpretation of the reprocessed airborne magnetic imagery has identified multiple, extensive northwest-trending cross structures spanning over 40 kms which highlights the potential scale of the Project.
  - Four highly prospective major structural 'corridors' have been interpreted from the review:
    - **Black Gold Fault Complex:** A total of 12 km strike of multiple northwest trending structures directly associated in part with high-grade intersections of 6m at 15.8g/t Au (*Brunswick Hill* prospect) as well a 2m at 20.1 g/t Au (*Brians* prospect).
    - **Mt Sandy Fault Complex:** A total of 15 km strike of multiple northwest trending structures directly associated in part with high-grade gold recently sampled by Silver City that returned up to 10.2 g/t Au.
    - **Teds Fault Complex:** A total of 7.5 km strike of northwest trending structures that are in part directly associated with high-grade gold recently bulk sampled by Silver City that returned up to 57.1 g/t Au.
    - **Shadow Fault Complex:** A total of 10 km strike of northwest trending structures that may be related to the southeast extension of the high-grade discoveries made by Musgrave Minerals including the nearby Big Sky discovery.
  - Extensive soil sampling programs are underway that cover both the Shadow and Teds Fault Complexes to assist with additional drill target identification.
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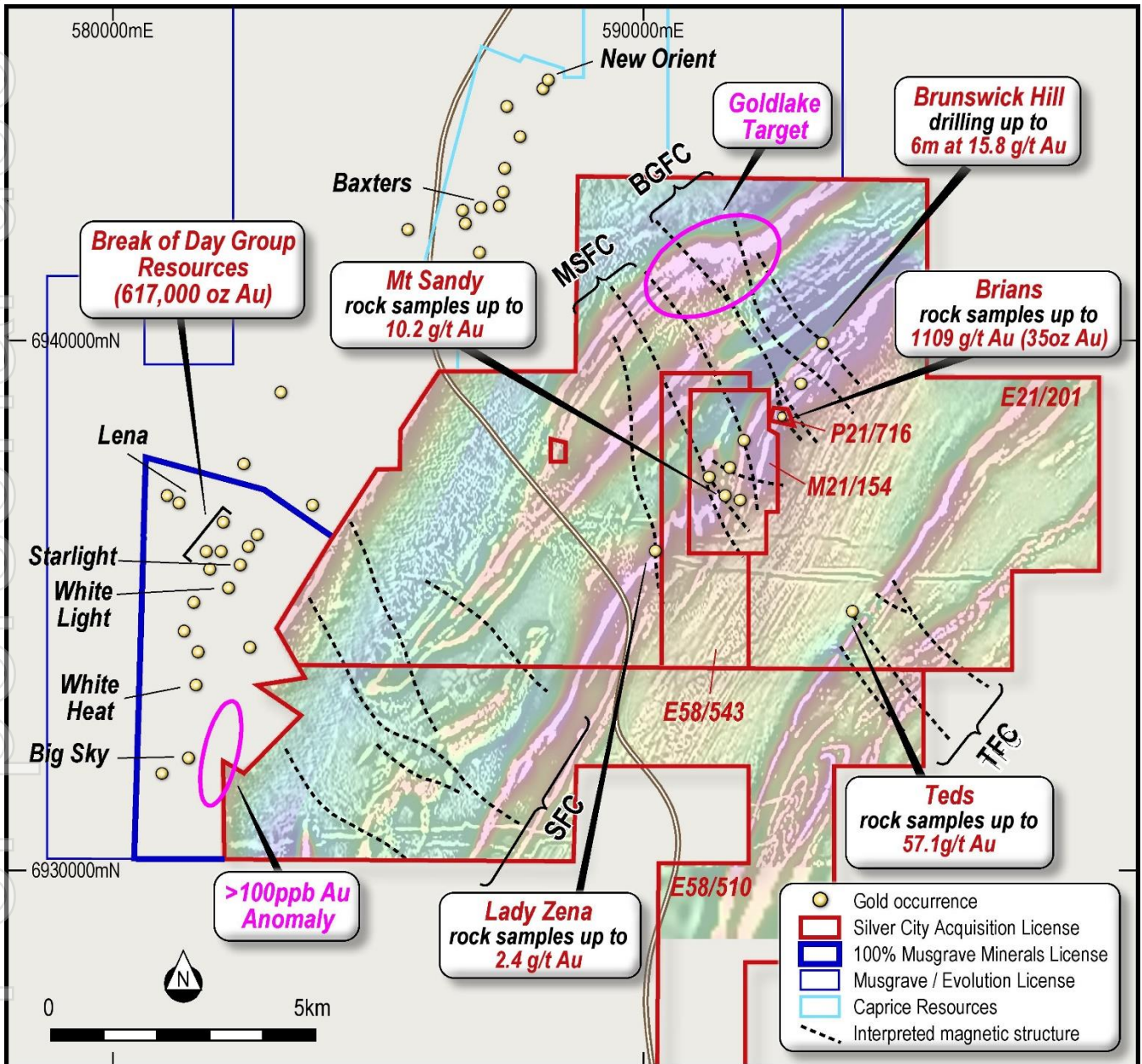
Silver City Minerals Limited (ASX: **SCI**) recently announced it has entered a binding share sale and joint venture agreement with the Vendor to acquire an 80% interest in the Austin Gold Project, located in the highly prospective Murchison greenstone province of Western Australia. The Austin Gold Project is located directly adjacent to the Cue Gold Project owned by Musgrave Minerals Limited (ASX:MGV), which includes the high grade Break of Day Deposit and Starlight discovery.

### Airborne Magnetics Interpretation

Silver City has undertaken a detailed review of reprocessed airborne magnetic imagery on the Austin Gold Project with a view to identifying gold bearing structures and additional new drill targets. An important recent interpretation by Silver City indicates high grade gold veins at surface that returned assays up to

**1,109 g/t Au** observed in the *Brians* pit trend northwest in a similar orientation to the mineralisation at the nearby *Starlight*, *White Light* and *White Heat* discoveries by Musgrave Minerals (ASX:MGV). The review of the airborne magnetic data at the *Brians* prospect clearly indicates a northwest oriented 'break' in the magnetics that is interpreted to be caused by alteration associated with gold mineralisation (Silver City announcement 19 April 2021). This breakthrough observation indicates that interpretation of the airborne magnetic imagery will be a critical tool in the identification of further northwest trending structures across the project.

The results of this work are highly encouraging and suggest that there are at least 4 complex structural 'corridors' where multiple northwest structures are evident. Importantly, widespread gold at surface and in drilling, occurs in close association to some of these interpreted faults in at least 3 of these areas and one remains largely under soil cover. The four fault complex corridors are illustrated and below:



**Figure 1:** Reprocessed airborne magnetic image (RTPLAP) showing the most prominent interpreted northwest trending structures (black dash), BGFC: Black Gold Fault Complex, MSFC: Mount Sandy Fault Complex, TFC: Teds Fault Complex and SFC: Shadow Fault Complex, primary mineral occurrences and deposits in the district and license outlines. Resource estimates by Musgrave Minerals are total combined Indicated and Inferred JORC 2012 estimates (Announcement 7 April 2021).

**Black Gold Fault Complex:** This area occurs in the north of the project tenure and comprises at least 3 northwest trending structures that extend for approximately 4km each (Figure 1). One of these structures is directly associated with high grade gold veins with abundant visible gold with assays up to **1,109 g/t Au** that were observed to trend northwest in *Brians* pit (Announcement dated April 12 2021). In addition, a second prominent structure is observed 1.5km to the northeast that occurs within 25m west of the significant drilling intersection at Brunswick Hill that returned **6m at 5.8g/t Au** and never been followed up at depth.

It is important to note that aside from the southern tip of two structures, where a small amount of work has occurred in the past at the *Brians* and *Brunswick Hill* prospects, the remaining 11km of the total 12 km strike length have not been explored by drilling.

A new target area has been highlighted from the work which is characterised by a prominent 'flexure' zone in the magnetic stratigraphy to the north of *Brians* that is cross-cut by at all three interpreted northwest faults (Figure 1). This exciting new target area occurs largely concealed beneath Lake Austin and is now called the *Goldlake* target.

**Mt Sandy Fault Complex:** This area cross cuts the central mining license M21/154 and comprises at least 3 major northwest trending structures that extend for 5 km each as well as a series of smaller branching faults (Figure 1). One of these structures is interpreted concealed beneath soil cover located 50m east of outcropping high grade gold veins recently sampled by Silver City that returned up to **10 g/t Au** at the *Mt Sandy* prospect (Figure 1; Announcement dated 12 April 2021). Importantly, 450m along strike to the northwest, previous drilling intersected **7m at 1.7g/t** including **3m at 3.4 g/t Au** in a location where the structure branches (Figure 1; Announcement dated 7 April 2021). This drilling intersection was never followed up to target northwest-trending structures.

A second prominent structure has been interpreted within 50m west of outcrops inspected by Silver City at the Lady Zena Prospect where veins returned up to **2.4 g/t Au** (Figure 1). A third structure is interpreted 660m northeast of Mt Sandy (Figure 1).

Again, it is important to note that besides minimal drilling along the structure northwest of *Mt Sandy*, 14km strike of the remaining total strike length the total 15 km strike of interpreted northwest structures remains effectively unexplored by drilling.

**Teds Fault Complex:** This area occurs in the Tuckabianna Greenstone belt in the eastern part of the project tenure where at least 3 northwest trending structures that extend for 2.5 km as well as smaller branching faults have been interpreted (Figure 1). Significantly, recent bulk sampling at *Gardners Hole* by Silver City returned **43 g/t Au** which is located 20m to the southwest of the central interpreted structure (Figure 1). Previous drilling has not targeted this interpreted northwest structure. Two other northwest structures have been interpreted but have not been explored, partially due to the fact that outcrop exposures are concealed by alluvial transported cover along the *Teds* prospect trend or beneath lake sediments to the south. It is clear that exploration has not been conducted in the past to target the Teds Fault Complex and at least 7 km strike length of a total 7.5 km strike of prospective northwest structures remains to be drill tested.

Soil sampling is currently under way across the prospect area covering the Teds Fault Complex.

**Shadow Fault Complex:** This area occurs in the western part of the project tenure and extends up to the tenement boundary which is adjacent to Musgrave Minerals Cue Project (Figure 1). At least 4 northwest trending structures that extend for 2.5 km have been interpreted that may be related to the southeast extension of the structures that control the high-grade discoveries made by Musgrave Minerals including the nearby *Big Sky* prospect (Figure 1). The northwest structures at *Shadow* are supported by mapping previously by the Geological Survey of Western Australia (Announcement dated 27 April 2021). Despite reports of gold nuggets reported over the Shadow area, the total 10 km strike potential of interpreted northwest trending structures is effectively unexplored.

Soil sampling is currently under way across the prospect area covering the Shadow Fault Complex.

### **Implications of the Interpretation Work**

The most important implication for this work is that four high priority fault complex 'corridors' that comprise a total of 13 significant faults with a total strike total length in excess of 40 km have been essentially unexplored by modern techniques including drilling and highlight the camp scale potential of the Project. It is highly encouraging that evidence for high grade gold occurs over very small areas close to 4 of the 13 interpreted northwest trending faults (*Brians, Brunswick Hill, Teds and Mt Sandy*) and these prospects are bona fide drill targets in their own right. Each structure extends for several kilometres and careful exploration is now required to identify targets where these structures cross-cut important lithological horizons such as banded iron formation (BIF) and other less obvious contacts from the geophysics. The new *Goldlake* target is an example of a new concealed target area in a favourable geological setting but many more are likely to come to light in the coming months with the help of soil geochemistry.

### **Next Steps of the Austin Gold Project**

The following work programs are currently underway on the Austin Gold Project to assist the drill targeting work:

- Extensive soil sampling programs are underway that cover both the Shadow and Teds Fault Complexes to assist with additional drill target identification.
- Regolith mapping is currently underway that utilises high resolution satellite Sentinel imagery to incorporate into the reprocessing, releveling and interpretation of the historic soil geochemistry data from the 15 km trend from *Lady Zena* to *Mt Brunswick* to identify subtle gold-in-soil anomalies. This will also be important where Silver City is currently conducting soil sampling.
- Digitisation of all historic drill data into a comprehensive database.

Other work programmes that will be planned in the coming months:

- A gradient array IP survey to cover the area from *Mt Brunswick* to *Brians* in order to identify areas of extensive disseminated sulphide and silicification/quartz veining associated with gold mineralisation.
- Completion of a targeting matrix across the project to rank each of the targets across the Austin Gold Project.
- Preliminary maiden drill program at the *Brunswick Hill* and *Brians* prospects where highly mineralised gold intersections have never been followed up at depth. In addition to RC drilling, Silver City plans to also complete strategic diamond drill holes to accurately define the orientation of gold-bearing veins and sulphide alteration.

This announcement has been authorised by the Board of Directors of Silver City Minerals Limited.

**-ENDS-**

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### **ABOUT Silver City Minerals Limited**

Silver City Minerals Limited (SCI) is a base and precious metals explorer focused on the prolific mining districts of Broken Hill, the Cobar Basin and the Lachlan Fold Belt of New South Wales, Australia. It takes its name from the famous Silver City of Broken Hill, home of the world's largest accumulation of silver, lead and zinc; the Broken Hill Deposit. The Company was established in May 2008 and has been exploring the Broken Hill District where it controls Exploration Licenses through 100% ownership and various joint venture agreements. It has a portfolio of highly

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prospective projects, many with drill-ready targets focused on gold, silver and base-metals. The Company Silver City has secured a significant footprint in the prolific Talling Greenstone belt through its application for E59/2445 Talling in the Murchison region of Western Australia. E59/2445 covers circa 28 kilometres strike of VMS prospective felsic volcanic rocks of the same age and association as the massive Golden Grove deposit located 150km to the South.

#### CAUTION REGARDING FORWARD LOOKING STATEMENTS

This document contains forward looking statements concerning Silver City Minerals Limited. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. So, there can be no assurance that actual outcomes will not materially differ from these forward-looking statements. Forward looking statements in this document are based on Silver City's beliefs, opinions and estimates of Silver City as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future development.

#### COMPETENT PERSONS STATEMENT

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr Leo Horn, a Competent Person. Mr Horn is a Director of Silver City Minerals and a member of the Australian Institute of Geoscientists. Mr Horn has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this announcement and to the activity which they are undertaking 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 Horn consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

### Appendix 1: The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of the Austin Gold Project

#### Section 1: Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Not applicable
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by</li> </ul>	Not applicable to geophysical interpretation.

Criteria	JORC Code explanation	Commentary
	<i>what method, etc).</i>	
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• 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.</li> </ul>	Not applicable to geophysical interpretation.
<i>Logging</i>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	Not applicable to geophysical interpretation.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Not applicable as no drilling was undertaken as part of geophysical interpretation.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Not applicable – The Company has undertaken a detailed review of reprocessed airborne magnetic imagery on the Austin Gold Project.
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	No applicable – primarily geophysical data was reviewed as through interpretation of the reprocessed airborne magnetic imagery on the Austin Gold Project.

Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Not applicable
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	Not applicable
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Not applicable to geophysical interpretation.
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	Not applicable to geophysical interpretation.
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Not applicable to geophysical interpretation.

## Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Austin Project, located 45 km north of Mt Magnet, comprises one granted mining license M21/154, three granted exploration licenses E58/510, E58/543 and E21/201 and one granted prospecting license P21/716 that are currently held by Gardner Mining Pty Ltd. Silver City Minerals has exercised an option to purchase 80% of the Austin Project licenses.</li> <li>Silver City is not aware of any Native Title on the Austin Project.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Not applicable

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• The geology comprises typical Archean Yilgarn greenstone belt lithologies and granitic intrusives. The mineralisation style is typical Archean orogenic-style lode gold deposits that are strongly structurally controlled. Mineralisation style on the project is interpreted to be similar to the mineralisation at the Break of Day group of deposits including the Starlight discovery (Musgrave Minerals) and also the Great Fingall gold deposit near Cue.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• 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: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• 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.</li> </ul>	Not applicable
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not applicable
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not applicable
Diagrams	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• See relevant maps in the body of this announcement.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>of drill hole collar locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All available data has been presented in figures.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>A total of 3,118 line kilometres of airborne magnetic data were previously completed by Gardner Mining Pty Ltd across the Austin Project in 2020. The survey was conducted at 50m spaced east-west lines at 30m height with 500 m north-south tie lines. Mapitt Geosolutions was contracted to complete reprocessed airborne magnetic images that are illustrated and reported in this announcement.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Further work is detailed in the body of the announcement.</li> </ul>