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**23 October 2019**

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# TUENA PROJECT
# EXTENSIVE GOLD ANOMALISM

## HIGHLIGHTS

- **Substantial gold in soil anomalism over a 5.4km by 1.5km corridor including:**
  - **Peeks Reef Prospect 900m x 200m soil anomaly >25ppb gold with individual soil assays up to 268ppb gold and rock chip assays up to 76.4g/t gold.**
  - **Cooper & McKenzie Prospect with 850m x 200m soil anomaly > 25ppb with soil assays up to 1550ppb (1.55g/t) gold.**
- **Airborne magnetics and radiometrics survey commencing shortly.**
- **Clear geological analogies to the multi-million ounce McPhillamys Gold Project located approximately 60 kilometres north of Tuena.**

## Introduction

Silver Mines Limited (ASX:SVL) ("Silver Mines" or "the Company") is pleased to provide an update on exploration activities underway at the Tuena Gold Project located 80 kilometres south of the city of Orange in New South Wales.

The Tuena Gold Project consists of an extensive series of historic hard-rock and alluvial gold mines which operated from the 1850s until the early 1900s. Records of production state that the Lucky Hit Mine, for example, produced at grades of 61g/t gold (NSW Government database).

Mineralisation, as indicated by historic shafts and adits, can be mapped over several kilometres of strike. The Tuena Gold Project is situated at the southern end of the highly prospective Hill End Trough within volcanic and sedimentary rocks of Silurian and early Devonian age. Mineralisation occurs within splay/horsetail structures associated with an inflection in the Copperhania/Lake George Thrust Faults. This structure is the continuation of the major Godolphin Fault, which is closely associated with mineralisation at the multi-million ounce McPhillamys gold project located 60 kilometres to the north (refer to Figure 1). The Company is exploring for both orogenic gold and volcanogenic massive sulphide gold+base metal systems.

## Work Program Completed

The Company has now completed a second phase of soil sampling at Tuena. This program follows from an earlier reconnaissance soil sampling on small 40 metre by 40 metre grids that revealed anomalism related the known historic workings (refer to release dated 26 March 2019). The second phase consists of approximately 1600 samples at a nominal grid of 50 by 200 metres *(refer to Figures 3, 4 and 5)*.

The recently completed soil sampling program has indicated that gold anomalism >8ppb can be traced along several geological structures over a strike length of 5.4 kilometres within a corridor of mineralisation up to 1.5 kilometres wide. As well as extensive gold anomalism, arsenic anomalism also successfully maps the system and is an important pathfinder element. In addition to the soil sampling, Company geologists have also conducted a first pass reconnaissance mapping and rock sampling program.

Several individual prospects show extensive higher-tenor gold anomalism. The Peeks Prospect, for example, shows gold in soil anomalism **>25ppb**, and up to **268ppb** with a coincident arsenic anomaly. Mapping of historic workings at the Peeks Prospect reveals both steeply dipping quartz veins 30 to 50 cm in width as well as stacked shallowly dipping veins. A single rock sample of a shallowly dipping vein returned an assay result of **76.4g/t gold**. The Cooper & McKenzie Prospect is defined over 850 metres of strike length with a **>25ppb** gold in soil anomaly with a peak value of **1550ppb gold (1.55g/t)**. Single point gold in soil assays from the eastern prospects returned up to **4220ppb gold (4.22g/t)** and **2660ppb gold (2.66g/t)** and whilst these results were not replicated on soil lines to the north and south, the arsenic anomalism indicates a target that is >500 metres in strike length. A 1.7 kilometre long mineralised trend, defined by soil anomalism >8ppb extends from the Lucky Hit historic workings to the Golden Dyke South workings and remains open towards the Golden Dyke main workings (infill sampling pending) some 800 metres further north.

The Company is currently in the advanced stages of planning an airborne magnetic and radiometric survey. This survey will cover the entirety of EL8526 and aid in mapping of magnetite-hematite bodies which are proximal to mineralised shear zones and also provide confirmation of the controlling structures.

Following the completion of the programs underway, the Company will plan the first round of exploration drilling on this project.

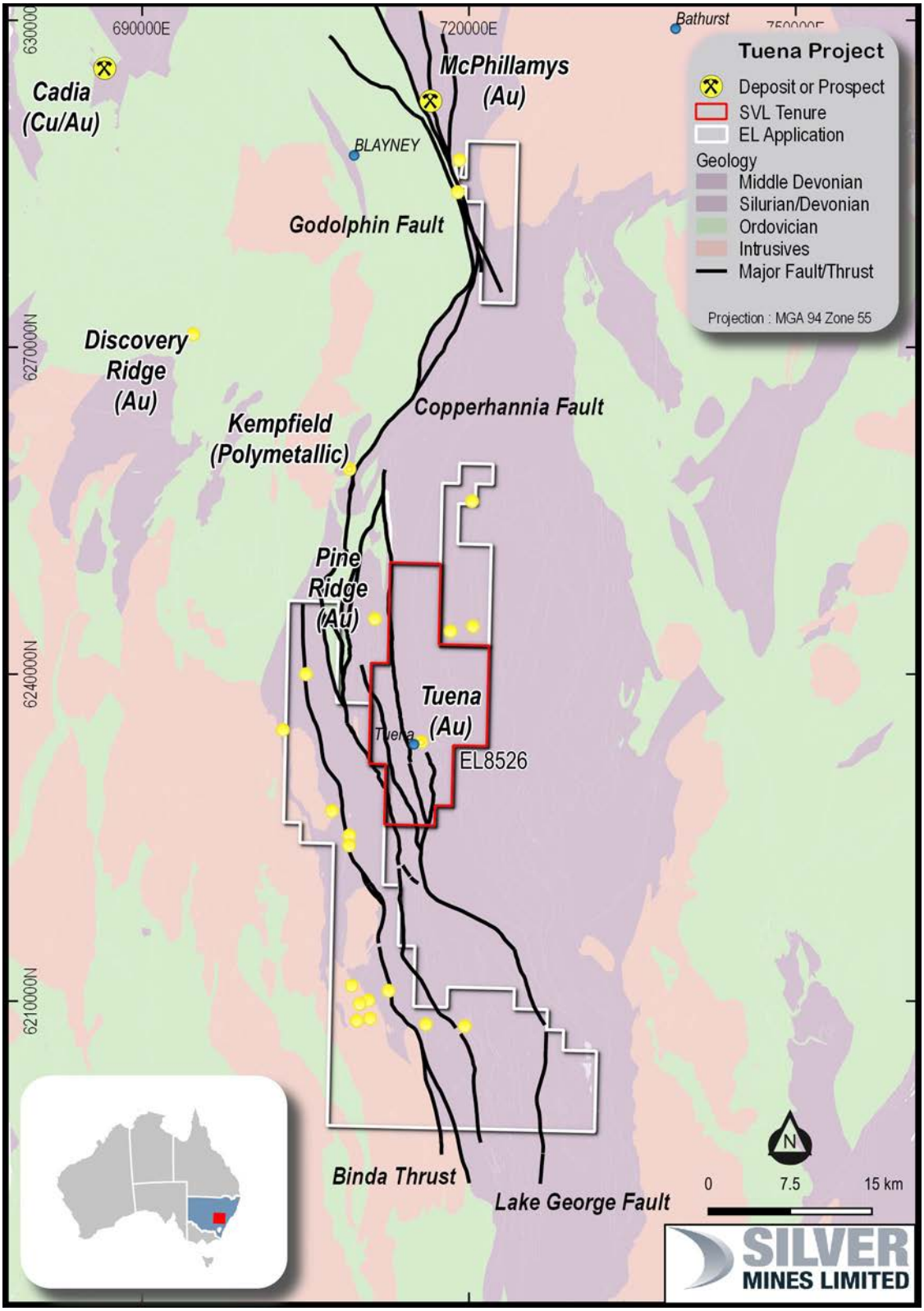


*Figure 1. Tuena Project location with regional geology and major deposits.*

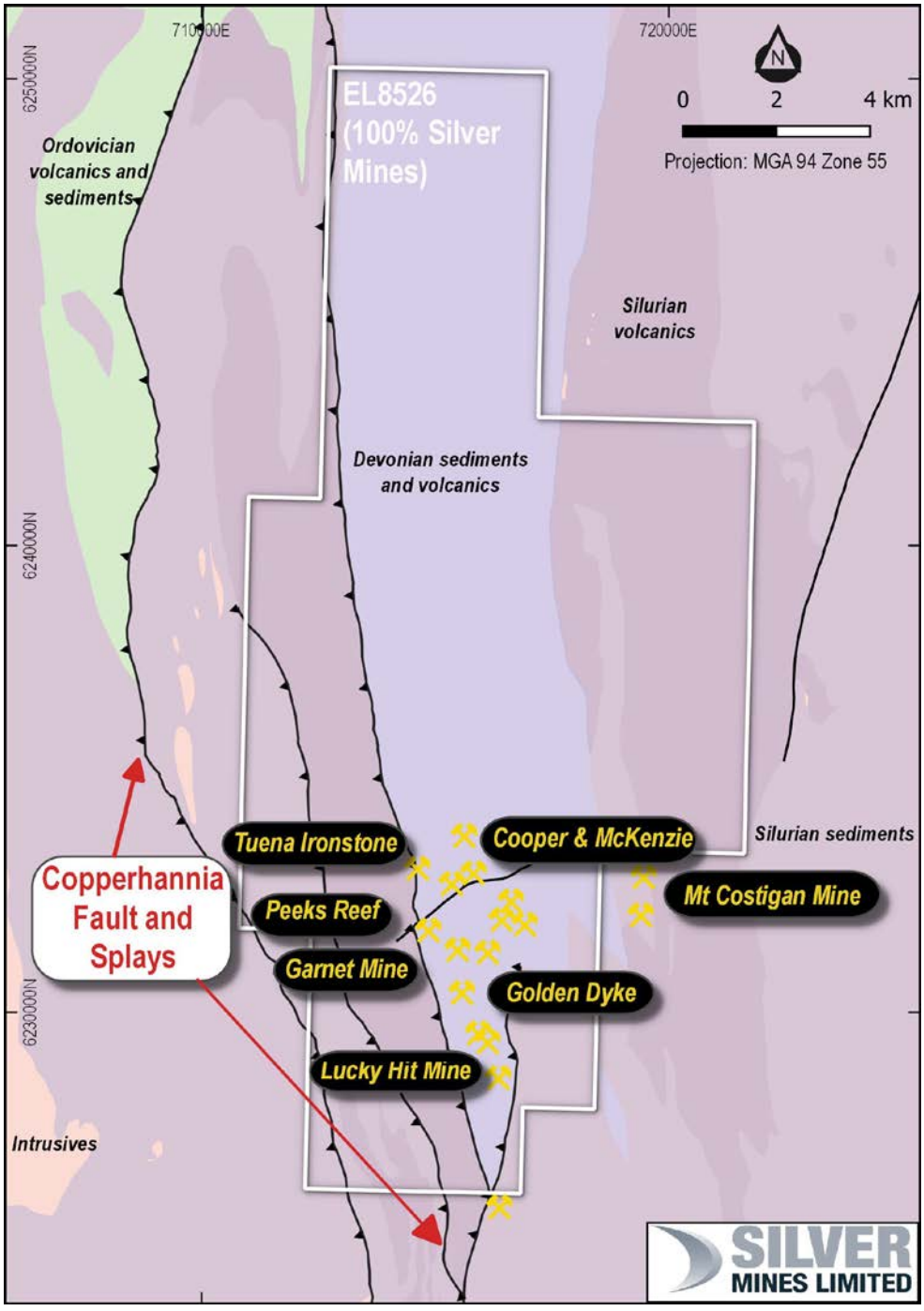


*Figure 2. General geology and prospect map of EL8526 showing historic gold working locations.*

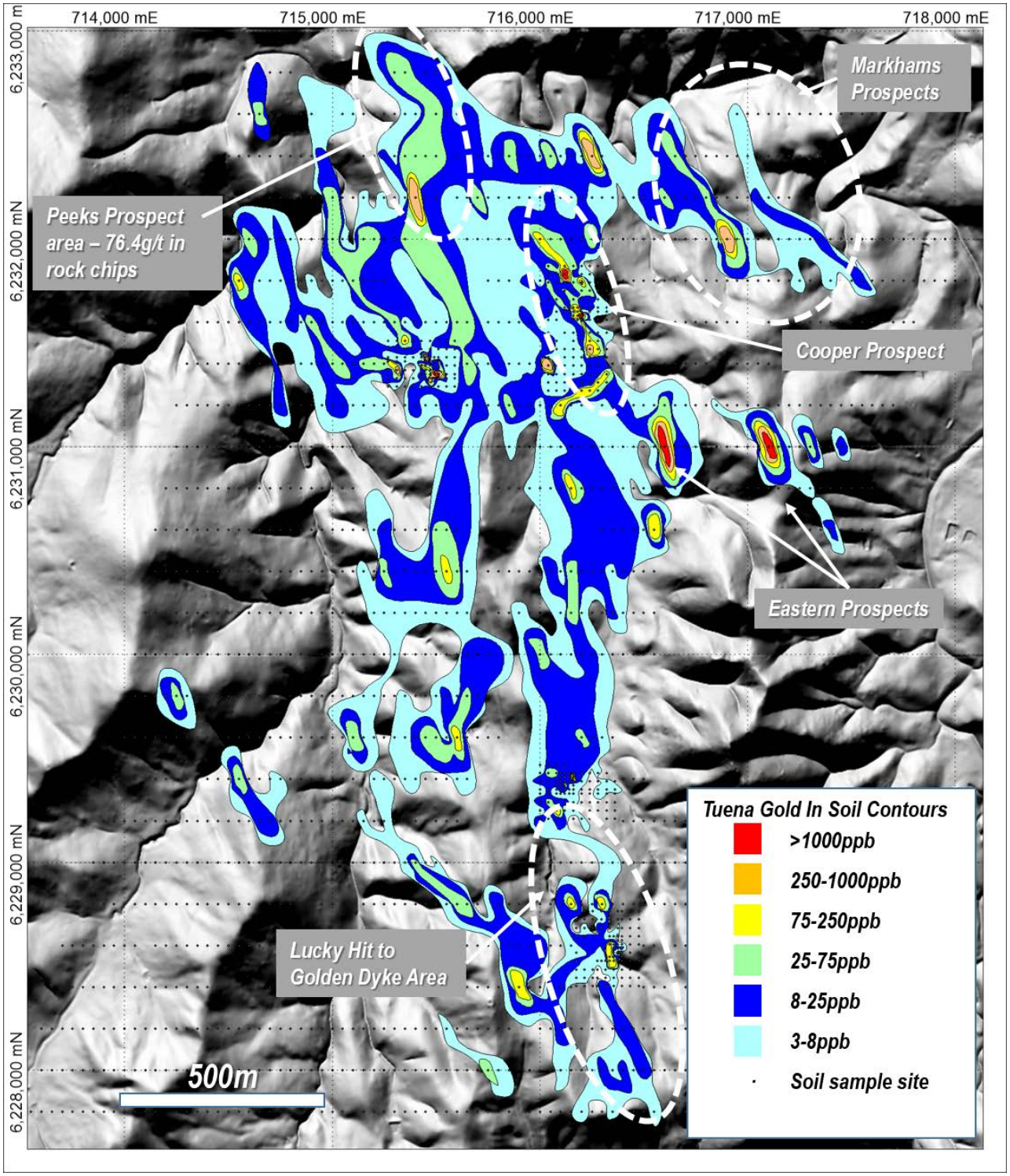


*Figure 3 Tuena Gold Project Soil Sampling Contours by Gold*

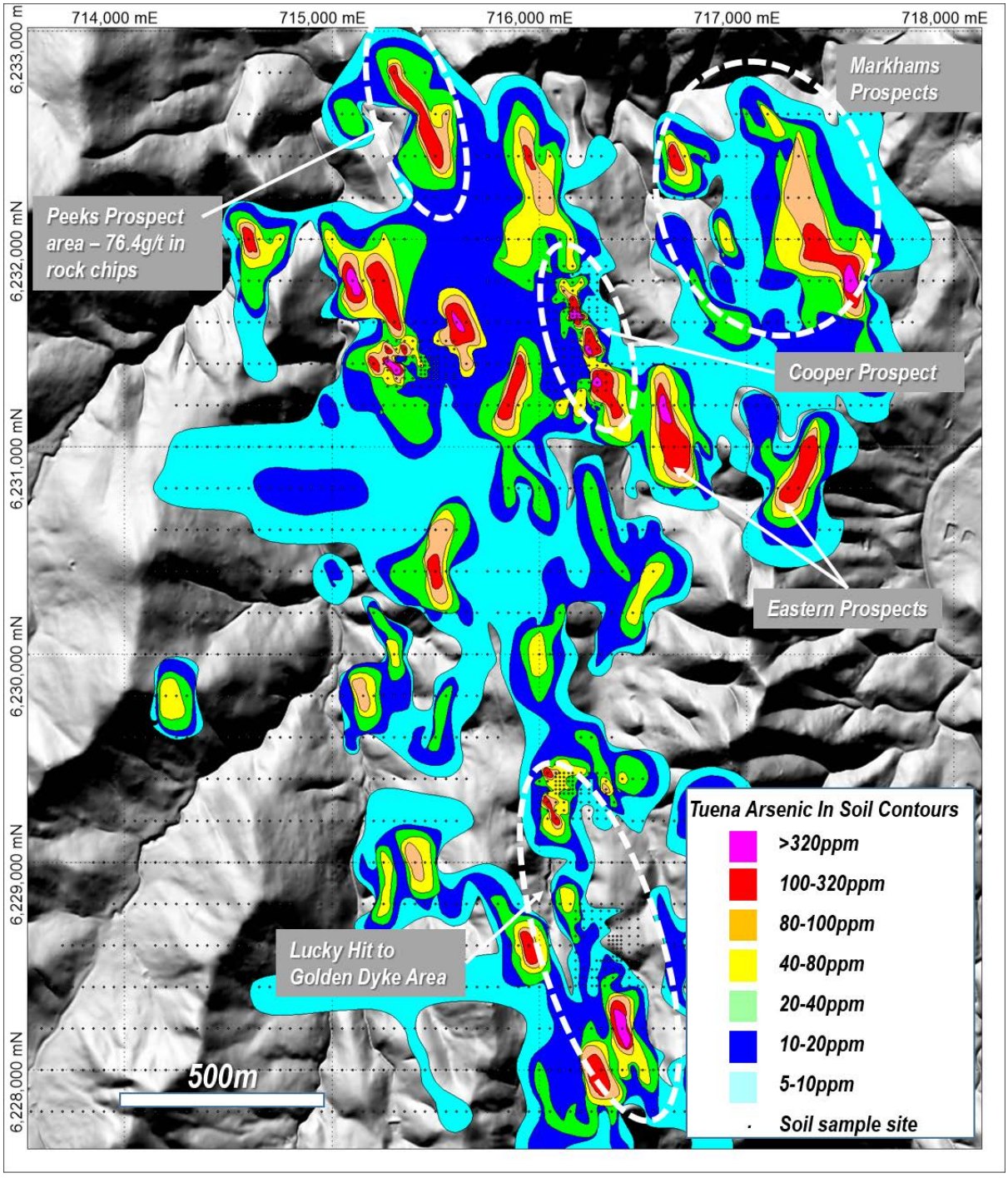


*Figure 4 Tuena Gold Project Soil Sampling contours by Arsenic*

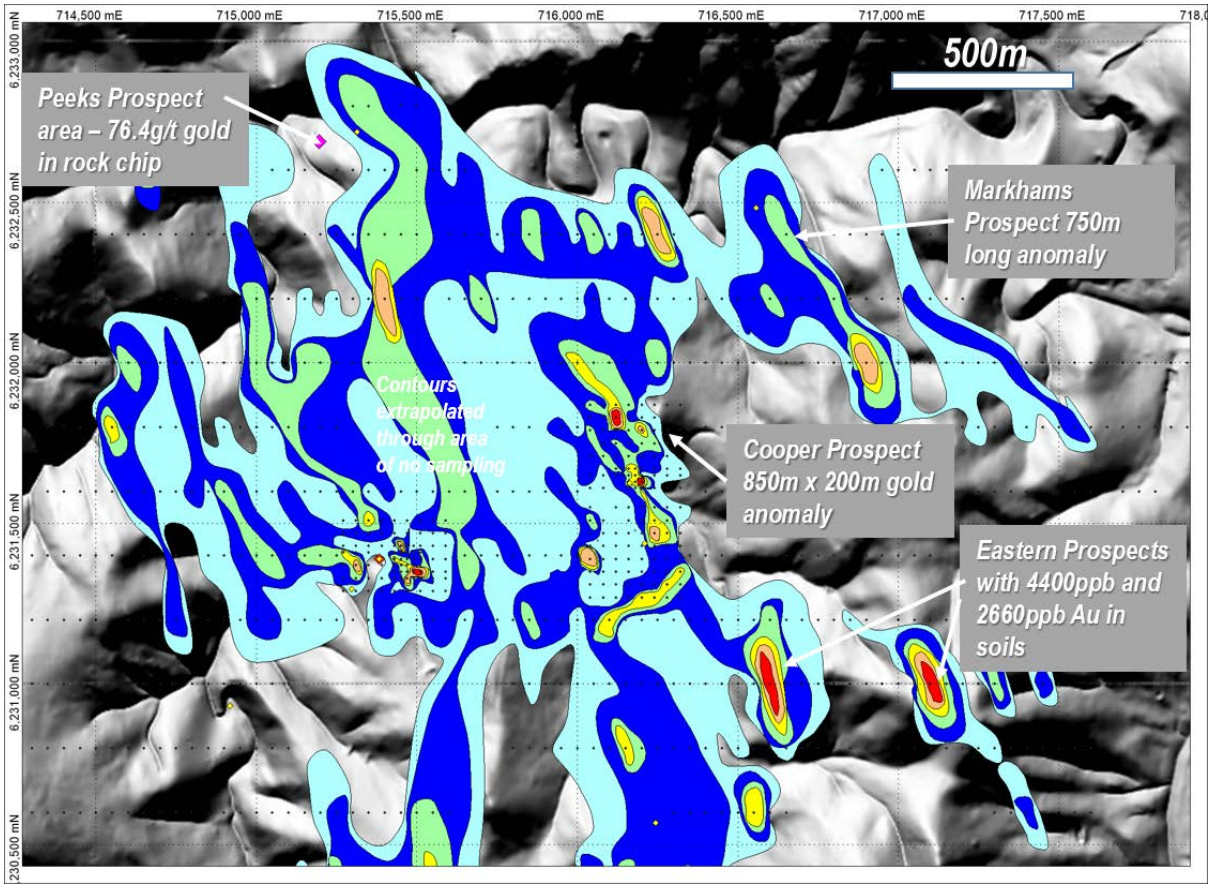


*Figure 5 Northern anomalies, zoomed in soil contours by gold (refer Figure 3 above for legend)*

## About the Tuena Project

The Tuena Gold Project is a regional exploration project that consists of a single exploration license covering approximately 175 square kilometres. The project is 100% owned by Silver Mines Limited and is located in the Southern Tablelands of NSW, 180 kilometres west of Sydney, 80 kilometres south of Orange and 150 kilometres southwest of the Company's primary assets the Bowdens Silver Project and the Barabolar Project. Tuena was the site of a mid-1800s alluvial and hard-rock gold rush. A cluster of historic workings closely associated with the major Copperhania Thrust Fault extend over an area approximately six kilometres by four kilometres. The Company has recently expanded its area of interest in the Tuena area with a further 634 square kilometres under application. The Company is targeting the region for large structurally controlled gold deposits analogous, perhaps, to the nearby McPhillamys Gold Deposit.

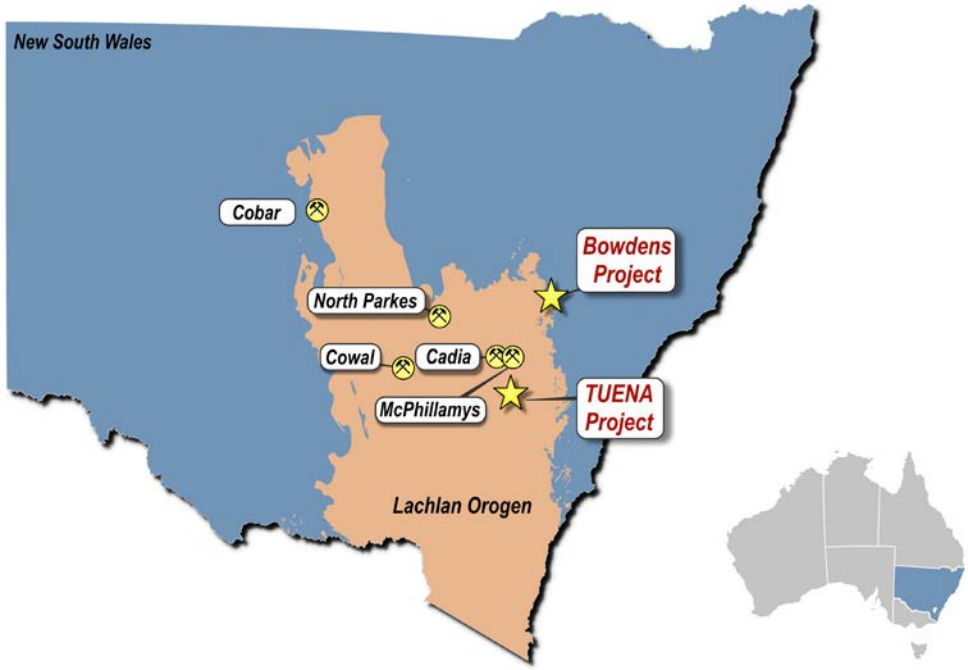


*Figure 6. Silver Mines Ltd projects in the Lachlan Orogen.*

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## Competent Persons Statement

The information in this report that relates to mineral exploration from the Tuena Gold Project is based on information compiled by the Bowdens Silver team and reviewed by Dr Darren Holden who is an advisor to the Company. Dr Holden is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC code). Dr Holden consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

## Appendix 1: Rock Samples > 0.1g/t Au

| SampleID | Easting (m) | Northing (m) | Gold (g/t) | Gold (ppb) | Arsenic (ppm) |
|---|---|---|---|---|---|
| 65245 | 715196 | 6232688 | 76.4 | 76,400 | 157 |
| 65235 | 716378 | 6228274 | 2.69 | 2,690 | 884 |
| 78371 | 716134 | 6229385 | 0.86 | 860 | 2,470 |
| 78370 | 716134 | 6229385 | 0.59 | 590 | <5 |
| 78359 | 716316 | 6228587 | 0.27 | 270 | 12 |
| 78360 | 715383 | 6231390 | 0.15 | 150 | 49 |
| 78358 | 716035 | 6228638 | 0.13 | 130 | <5 |
| 65236 | 716207 | 6228999 | 0.10 | 100 | 62 |

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# JORC Code, 2012 Edition – ANNEXURE 1

This section related to the newly reported XRF soil analysis. For JORC tables related to previous rock sampling please refer to release dated 24 August 2018, and for geophysical work, refer to release data 16 August 2018.

## Section 1 Sampling Techniques and Data

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

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sampling techniques* | • *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.* | • A field soil sample of approximately 1 kilogram is collected from the 'C' horizon and placed in a calico bag and assigned a sample number. It is transported directly to ALS Laboratory in Orange, NSW.<br>• Rock chip sampling was undertaken with a geologist hammer to collect adequate sample for assay, up to 1.5 kilograms. The sample was then placed in calico bags and assigned a sample number. Samples returned to the Bowdens Silver office in Lue before being transported to ALS Laboratory in Orange, NSW |
| *Drilling techniques* | • *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).* | • No drilling is reported in this release. |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *Whether a relationship exists between sample recovery and grade and* | • No drilling is reported in this release. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | |
| *Logging* | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • Soil samples are logged for colour, soil type, depth of collection and moisture content.<br>• Rock chip samples are logged for alteration, mineralisation and lithology. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core were taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • Soil samples are screened by the lab to 60 mesh size (-250 microns) for analysis via aqua regia digestion. Samples were collected on a regional grid of 50 metre samples by 200 metre line spacing.<br>• Rock chip samples collected from outcrop of altered and mineralized material as well as dump material from historic workings. Samples were under the required 3 kilogram limit and did not require splitting or sub-sampling before analysis. |
| *Quality of assay data and laboratory tests* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation, etc.*<br>• *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.* | • Soil samples dispatched to ALS Laboratory in Orange, NSW for sample preparation by screening to -250 microns. Samples then undergo analysis by AuME-TL43 for gold and base metals involving an aqua regia digest and an Inductively Coupled Plasma – Mass Spectrometry finish. Samples recording gold over 1ppm were analysed by method Au-AROR43. This method is considered a partial digestion.<br>• Rock chip samples dispatched to ALS Laboratory in Orange, NSW for sample preparation by crushing and pulverizing. Samples then undergo a 33 element analysis by 4 acid digestion using method ME-ICP61 for base metals and by fire assay method Au-AA25 for gold. |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification,* | • Primary assay data is sent electronically from the lab to the SVL database administrator and then entered into the geological database for validation.<br>• All assays are matched with the pre-entered field information and loaded directly from the output provided by the laboratory with no manual entry of |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | assays undertaken.<br>• All data are stored in the Company's electronic relational database.<br>• No adjustments were made or required to be made to the assay data. |
| *Location of data points* | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Each sample location for soil and rock chip samples is recorded with a hand-held GPS with an accuracy of +/- 3 meters.<br>• All coordinates recorded in MGA94 zone 55. |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The orientation of the soil sampling was designed to cover the regional extent of the southern part of the Tuena Project. The sample spacing was every 50 metres along 200 metre spaced lines. This sample spacing is considered sufficient to identify consistency with mapped geological structures and continuity of gold mineralisation, defined by previous soil sampling by the Company on the Project.<br>• Rock chip sampling was conducted randomly on interesting looking geology and potential mineralisation. |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *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.* | • The principal mineralised structures appear to strike NW-SE consistent with the orientation of the lithology and major fold structures. The soil sampling grid is conducted perpendicular to the orientation of geology and mineralisation. |
| *Sample security* | • *The measures taken to ensure sample security.* | • All soil samples are bagged at the location of collection, and remain unopened until being received at the lab. Rock chip samples are bagged at location. This is completed under the supervision of Company senior geologists or senior field supervisor. Samples are driven by site personnel to the ALS laboratory in Orange, NSW (~90km from the Tuena Project site). |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • The sampling technique has been reviewed by the independent Company advisor Dr Darren Holder of GeoSpy Pty Ltd and who is also the Competent Person for this release. |

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* | • *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.*<br>• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • The Tuena Project is located entirely within Exploration Licence No EL8526, held wholly by Silver Mines Limited, through its subsidiary Tuena Resources Limited, and is located approximately 80km south of Bathurst, New South Wales.<br>• The tenement is in good standing.<br>• The project has a 1.00% Gross Royalty over 100% of EL8526. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • New sampling reported under this table is based on work conducted solely by Silver Mines/Tuena Resources. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • The Tuena Project consists of Devonian and Silurian age volcanics and sedimentary rocks which have been regionally and locally deformed during the Tabberabberan orogeny. This has resulted in regional folding and multiple generations of faulting associated with the major Copperhannia Thrust on the western side of the tenement.<br>• Mineralisation is defined by the existence of historic shafts and audits, and can be observed at surface as structurally controlled shear or vein systems hosted within deformed sediments and volcanics. |
| *Drill hole Information* | • *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:*<br>o *easting and northing of the drill hole collar;*<br>o *elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar;*<br>o *dip and azimuth of the hole;*<br>o *down hole length and interception depth; and*<br>o *hole length.*<br>• *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.* | • All information is included in Appendix 1 of this report.<br>• No drilling is reported in this release. |
| *Data aggregation methods* | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | • No averaging or sample aggregation has been conducted. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • The principal mineralized structures appear to strike NW to SE and as such the soil sampling grids are conducted perpendicular to geological orientation. |
| *Diagrams* | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to, a plan view of drill hole collar locations and appropriate sectional views.* | • Maps provided in the body of this report. |
| *Balanced reporting* | • *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.* | • All laboratory results are reported within the body of this release. |
| *Other substantive exploration data* | • *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 and potential deleterious or contaminating substances.* | • This report relates to an overall status and description of current exploration knowledge at the Tuena Project. |
| *Further work* | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Further exploration work will be conducted to refine the gold targets generated from this work. |