

6 December 2023

# INITIAL HIGH GRADE TINTIC MINERAL RESOURCE AT KINGMAN PROJECT, ARIZONA PROVIDES NEAR TERM DEVELOPMENT OPPORTUNITY

# **Key Highlights:**

- Initial high grade JORC 2012 compliant Inferred Mineral Resource Estimate (MRE) of 494,000 tonnes at 4 g/t Au for 64,000oz gold and 43.4 g/t Ag for 689,000oz silver within the top 40m.
- Mineralisation is open along strike with evident upside potential along the shallow, highgrade extensions; further drilling planned for Resource growth.
- The Tintic MRE outcrops at surface and can be mined via free dig, offering the opportunity for cost effective and rapid project development utilising shallow open pit mining methods and toll treatment scenarios.
- The large silver resource adds significant upside to the Project.
- Reported MRE only covers a small portion of Kingman Project with multiple regional targets already identified for further drilling.
- Metallurgical test work underway with results due in early Q1 2024.
- MRE and metallurgical test work results to form the foundation of a Preliminary Economic Assessment (PEA) to be completed in Q1 2024.
- Permitting application submission for open pit mining operations to be lodged in Q2 2024.

Riedel CEO David Groombridge said: "We currently have identified approximately 64,000 ounces of gold and 689,000 ounces of silver situated in a very shallow oxide zone from outcrop down to 40 metres. Recognising this opportunity, we aim to swiftly create short term value for our shareholders by fast-tracking a potential start-up operation via a low-cost, free-dig open pit development scenario leveraging off local infrastructure.

"Our immediate plan involves initiating a PEA in Q1 of 2024. This study will serve as the cornerstone for our permit application, scheduled for submission in Q2 of 2024, with a goal to commence mining in 2025 – a goal not too distant. Subsequently, we will be in a position to explore further opportunities within the Tintic area and the broader Kingman Project, with the aim of transitioning from explorer to operator in a short timeframe.

"The Kingman Project occupies a central and expansive land position within a renowned mining region known for its rich deposits of epithermal gold-silver and copper-molybdenum porphyries. While our primary attention remains focussed on activities to support short-term mine development, our 2024 fieldwork program aims to discover additional high-grade prospects located close to surface from the multiple unexplored targets in the Project area. Further, we will begin initial investigations into the source of epithermal mineralisation, with the potential for a substantial copper porphyry system at greater depths.

"We are enthusiastic about continuing this exciting journey at Kingman, Arizona, with the aim of delivering on a high-grade low-cost production opportunity, situated in a stable and investment-friendly Tier 1 jurisdiction".

Riedel Chairman Michael Bohm commented: "The team at Riedel have done an amazing job delivering this Mineral Resource Estimate at Kingman. The shallow and high-grade nature of the resource, located in a mature mining jurisdiction, provides a great opportunity to quickly advance a mining project by leveraging off the regional infrastructure. Our vision remains to join the ranks of gold producers during calendar year 2025".



Riedel Resources Limited (**ASX: RIE, Riedel** or the **Company**) is pleased to report the initial JORC 2012 compliant Mineral Resource Estimate (**MRE** or **Resource**) of 494,000 tonnes at 4 g/t Au for 64,000oz gold and 43.4 g/t Ag for 689,000oz silver at its Tintic deposit within the Kingman Project in Arizona, USA. The independent Resource was prepared by Snowden-Optiro.

The Inferred Resource comes just 6 months after Riedel acquired a 51% interest in the Project, via Flagstaff Minerals (USA) Inc, and is based on high-grade, shallow mineralisation which outcrops at surface and is contained within the top 40 metres. In addition to the gold Resource, the large silver Resource provides significant upside to the Project.

There is clear potential for additional high-grade and shallow mineral resource growth along strike, and only a small portion of the Kingman Project is included in the MRE, highlighting further regional growth potential.

The Resource offers the Company the opportunity for cost effective and rapid project development utilising shallow open pit mining methods and toll treatment through a third-party mill. Ideally located in Arizona, USA, a tier-one mining jurisdiction, the Project is close to significant gold producers and major infrastructure and power, including existing permitted processing plants.

Metallurgical test work is currently underway with results anticipated early in Q1 2024. Together with the Resource, the metallurgical test work will form the foundation of a Preliminary Economic Assessment (**PEA**) to be completed in Q1 2024. The purpose of undertaking the PEA is to investigate and assess the Tintic deposit against several toll treating process plant scenarios. The Company intends to lodge permitting application submissions in Q2 2024 for mining operations.

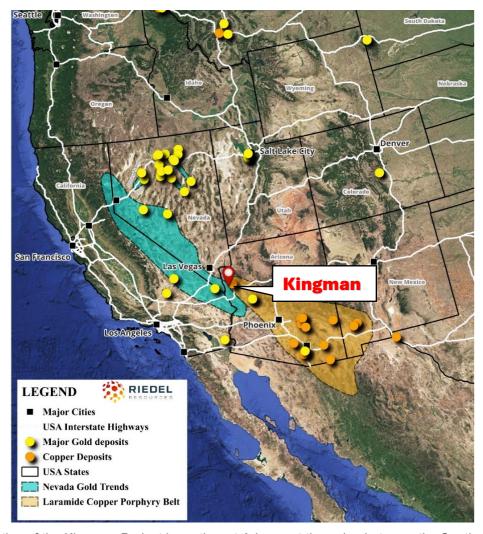


Figure 1: Location of the Kingman Project in northwest Arizona at the union between the Southwest US copper porphyry belt and the Walker Lane gold trend in Nevada.



#### **Tintic Mineral Resource Estimate**

In 2019, an 11-hole diamond drilling program was completed across the Kingman Project including 4 holes at Tintic (19-KNG-001 to 19-KNG-004). Subsequent diamond and Reverse Circulation (RC) programs were completed in 2021, 2022 and 2023. The MRE is based on 135 RC holes (8,918.8 metres) and 24 diamond holes (992.6m) for a total of 159 holes and 9,911m. Overall, drilling at the Kingman Project totals 240 holes for 17,738m.

Table 1: Tintic Mineral Resource Estimate (JORC 2012) by weathering, October 2023

Weathering Domain	Tonnes (t)	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)	Pb (%)	Pb (t)	Zn (%)	Zn (t)
Oxide	37,000	8.2	10,000	29.3	35,000	0.6	224	0.4	165
Transitional	457,000	3.7	54,000	44.5	654,000	0.8	4,000	0.5	2,000
Total	494,000	4.0	64,000	43.4	689,000	0.8	4,000	0.5	2,000

Notes: 0.8 g/t Au Cut-off above Top of Fresh Rock (TOFR) at ~40m depth, assays to 23 October 2023. Differences may occur due to rounding.

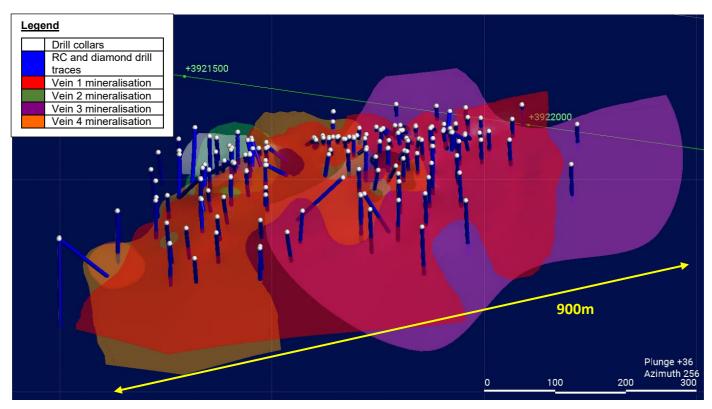


Figure 2: Tintic mineralisation wireframes looking oblique to the northwest with all drill holes included in the MRE.



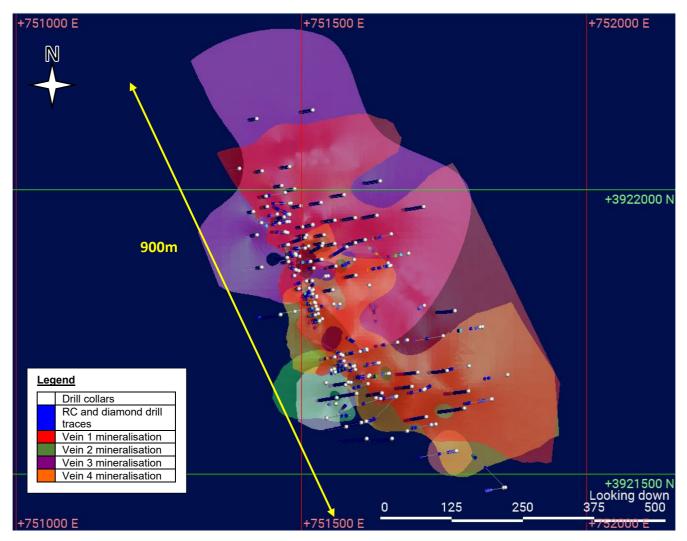


Figure 3: Plan view of Tintic mineralisation wireframes with all holes included in the MRE.

Table 2: Tintic Resource (Inferred) at various Cut-off grades

Au Cut- off Grade (g/t)	Tonnes (t)	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)	Pb (%)	Pb (t)	Zn (%)	Zn (t)
0.3	531,000	3.8	65,000	42.7	729,000	0.8	4,000	0.4	2,000
0.4	524,000	3.8	65,000	42.8	721,000	0.8	4,000	0.4	2,000
0.5	516,000	3.9	64,000	43.1	716,000	0.8	4,000	0.4	2,000
0.6	514,000	3.9	64,000	43.1	712,000	0.8	4,000	0.4	2,000
0.7	508,000	3.9	64,000	43.1	703,000	0.8	4,000	0.4	2,000
0.8	494,000	4.0	64,000	43.4	689,000	0.8	4,000	0.4	2,000
0.9	477,000	4.1	63,000	43.7	670,000	0.8	4,000	0.4	2,000
1.0	464,000	4.2	63,000	44.1	657,000	0.8	4,000	0.4	2,000

Notes: Assays to 23 October 2023. Differences may occur due to rounding.



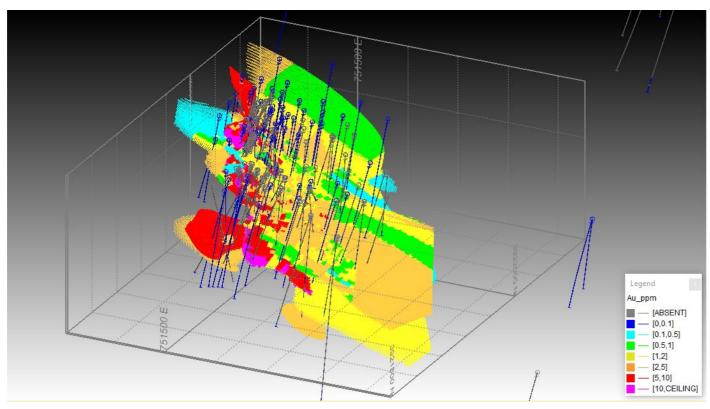


Figure 4: Oblique 3D view of the Tintic block model looking to the north. Block model only shows blocks inside mineralised domains, colour by Au ppm.

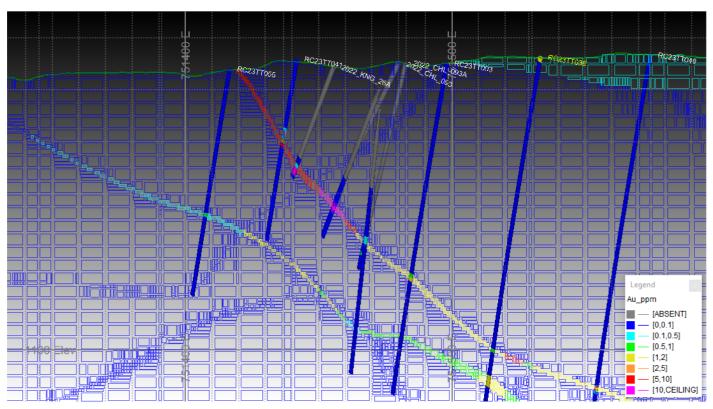


Figure 5: Cross section (slightly oblique view aligned to drill lines) through the Tintic block model. View is NNE +/-10m showing block model and drillhole composites coloured by Au ppm.



## **Immediate Resource Growth Potential and Regional Upside**

Opportunities to increase the Resource are abundant with Tintic remaining open along strike and further mineralisation at depth that requires shallow, follow up drilling.

The Company's immediate growth strategy will continue to focus on expanding the Resource footprint at Tintic through step out drilling along strike and to identify additional high-grade, shallow new discoveries within the Kingman Project.

In addition to Resource growth at Tintic, multiple zones of mineralisation have been identified from exploration drilling with numerous, untested, walk-up targets across the Project that indicate a proximity to a significant, large scale hydrothermal system that is the source of fluids and metal at Kingman. Future regional exploration will concentrate on identifying additional shallow, high-grade mineralisation.

Ongoing exploration efforts will also investigate the potential of additional copper-molybdenum porphyry mineralisation, analogous to the neighbouring Mineral Park mine, situated at depth beneath the Kingman Project that is interpreted to be the source of the mineralisation at Tintic.

## **Project Studies**

The high-grade and shallow resources are situated above Top of Fresh Rock (**TOFR**) approximately within the upper 40m. This high-grade resource base provides a strong platform to evaluate a future open pit mining scenario, with mined ore toll treated through a third-party mill.

The Company intends to provide shareholders with an evaluation of production potential at the Tintic deposit during the June quarter 2024, following the completion of a Preliminary Economic Assessment (**PEA**). The purpose of undertaking the PEA is to investigate and assess the Tintic deposit against several toll treating process plant scenarios with an approximate 180,000-ton throughput. The nameplate capacity of a processing plant is not an indicator of annual production throughput.

Detailed test work, fieldwork and studies include:

Activity	Indicative timing
Cultural Surveys	Survey completed and reports pending
Geotechnical logging, dedicated grade control drilling and evaluation	Q1 2024
Metallurgical drilling and laboratory test work	Q1 2024

The above timetable is indicative only and subject to change.



## **Drilling results**

#### **Tintic**

Final assays received at Tintic during the 2023 drilling program with significant shallow gold and silver results including:

- 1.52m @ 4.22 g/t Au, 16.6 g/t Ag, 0.14 % Pb from 3.05m in RC23TT054
- 1.52m @ 4.96 g/t Au, 17.15 g/t Ag, 0.14 % Pb and 0.90 % Zn from 7.62m in RC23TT054
- 0.76m @ 0.50 g/t Au, 734 g/t Ag, 0.18 % Pb and 0.17 % Zn from 28.96m in RC23TT055
- 0.76m @ 0.65 g/t Au, 57.3 g/t Ag from 41.91m in RC23TT051
- 1.52m @ 1.42 g/t Au, 7.65 g/t Ag, 0.18 % Pb and 1.62 % Zn from 71.63m in RC23TT052

All results are included in the Tintic MRE and highlighted in Figure 6. Mineralisation remains open to the northwest with holes RC23TT051 and RC23TT052 situated 90m along strike. Mineralisation was intersected at ~42m and 72m downhole respectively with potential high-grade supergene gold and silver situated up-dip currently un-drilled.

## **Regional Exploration**

The first systematic testing of conceptual targets at the Kingman Project beneath transported cover was completed in October 2023 comprising a total of six (6) exploration RC drill holes for 588.8m. Drilling targeted interpreted structural breaks in magnetic geophysics, with all holes successfully identifying anomalous gold-silver mineralisation beneath transported cover.

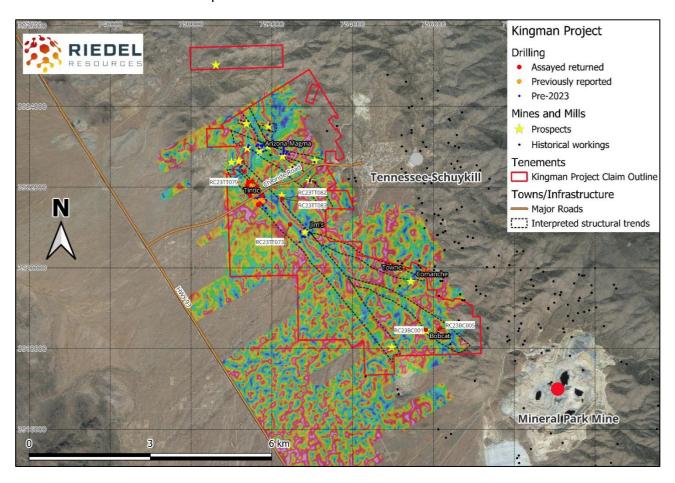


Figure 6: Kingman Project highlighting 2023 exploration drill holes overlain on magnetic geophysics (Tilt derivative of reduced to pole magnetics upward continued 25m). All holes are situated on structural trends with multiple, untested targets within these structural corridors.



Two (2) drill holes were completed along northwest (RC23TT079) and southeast (RC23TT073) extensions to Tintic towards the historical Tuckahoe and Jim's workings respectively (Figures 6 and 7). Results include:

- 0.76m @ 0.3 g/t Au, 5.6 g/t Ag from 12.19m in RC23TT079
- 0.76m @ 0.44 g/t Au and 1.2 g/t Ag from 136.4m in RC23TT073

Two (2) drill holes were drilled at the Silver Fox prospect situated ~500m east. The prospect is completely blind with alluvium concealing a north-south structural break within the magnetic geophysics. Mineralisation intersected sulphides with strong silver including:

- 0.76m @ 36 g/t Ag, 0.04 g/t Au from 16.77m in RC23TT082
- 2.29m @ 87 g/t Ag, 0.17 g/t Au, from 24.38m in RC23TT083 including
  - o 0.76m @ 126 g/t Ag, 0.17 g/t Au, from 24.38m

Two holes were drilled at the Bobcat prospect situated in the south-eastern section of the Kingman Project and ~5km from Tintic.

- 0.76m @ 0.59 g/t Au, 0.6 g/t Ag, 639 ppm Pb and 207 ppm Zn from 20.57m in RC23BC001
- 0.76m @ 0.33 g/t Au, 0.9 g/t Ag from 52.58m in RC23BC005

The multiple zones of mineralisation identified from the exploration drilling, including beneath transported cover, indicates a proximity to significant, large scale hydrothermal system that is the source of fluids and metal responsible for driving mineralisation across the district. Multiple structural features from magnetics, along with historical workings, remain untested within the Kingman Project and exploration will focus on locating and expanding shallow high-grade gold-silver mineralisation to be added to potential future resources.

Future exploration efforts will also investigate the interpreted source of the mineralisation at depth beneath the Kingman Project with Cu-Mo porphyry intrusions, analogous to the neighbouring Mineral Park mine, known to be emplaced in several successive magmatic intrusions.



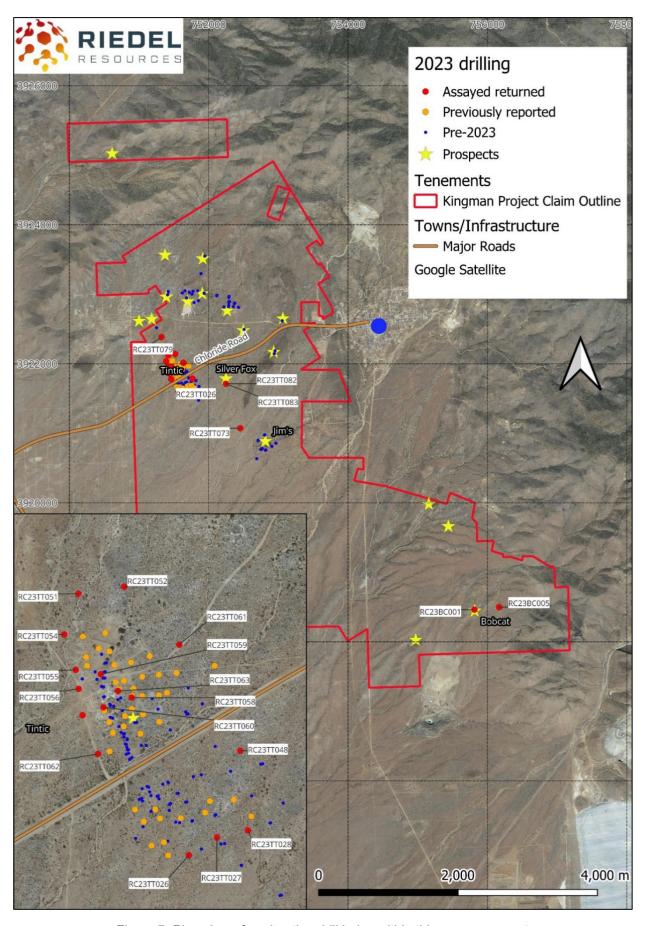


Figure 7: Plan view of exploration drill holes within this announcement.



## **Background**

The Tintic deposit occurs in the northwest of Riedel's Kingman Gold Project in Arizona, comprising 2,191 hectares of contiguous landholding ~110km southeast of Las Vegas, Nevada (Figure 8). Las Vegas is a major hub, hosting infrastructure network, including major highways, an international airport, and power from the Hoover Dam. The town of Kingman is 25km to the southeast of the Project with direct connection to Los Angeles by road on Interstate 40 and Class 1 BNSF railway.

Prospectors first arrived in northwest Arizona in the 1840s and identified silver, gold, copper, zinc, lead and turquoise mineralisation along the Cerbat Mountains of Mohave County. In 1863, the town of Chloride, was established with mining widespread from the 1870s up to the early 1940s. Mining within the Project area predominantly focused on high-grade gold and silver, with the largest workings, the Arizona-Magma, mined to a depth of 109m.

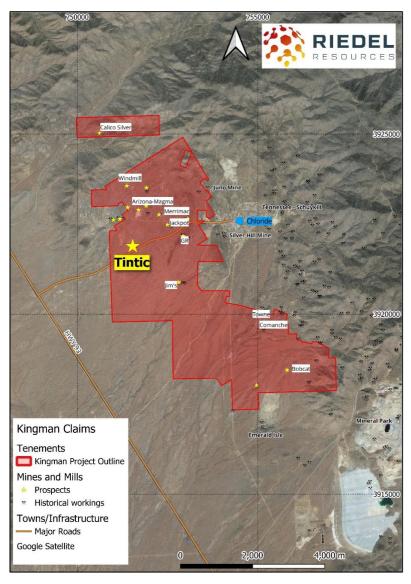


Figure 8: Kingman Gold Project highlighting the Tintic deposit and prospects.

At Tintic, no accurate production figures exist, with limited mining concentrated around 6 small shafts and pits. The main shaft was sunk to 120ft (36.5m) with underground strike driving north and south on the 120ft level for a combined ~246ft (75m). Two winzes on both north and south drives were sunk for ~35ft (10.6m). No stoping took place. Many of the mines ceased operations during World War 2, and there has been limited modern exploration across the Chloride area since.



## **Summary of JORC Table 1**

A summary of JORC Table 1 is provided below for compliance with the Mineral Resource and in line with the requirements of ASX Listing Rule 5.8.1.

### Geology and geological interpretation

Tintic is located along the western flank of the metamorphosed Paleoproterozoic Cerbat Mountains of the Mohave Province in northwest Arizona that form a block-faulted range of the Basin and Range physiographic province of the southwest United States.

The Cerbat Mountains are a typical block-faulted range of the Basin and Range physiographic province of the southwest United States and consists of Proterozoic supracrustal rocks subjected to two periods of metamorphism and deformed at granulite facies as evidenced by quartzo-feldspathic gneisses, amphibolites, and other metamorphic units.

Cretaceous to Eocene (80-40Ma) granites were intruded into the Cerbat Mountains during the Laramide Orogeny and are responsible for porphyry copper- molybdenum intrusions extending NW-SE from Mexico to NW Arizona, inclusive of the Mineral Park deposit ~8km to the SE of Tintic.

Intrusive dykes of different lithologies cut the Paleoproterozoic units and include gabbro, andesite, rhyolite, and pegmatites of various orientations, thickness, and orientation. The dykes are interpreted as genetically related to emplacement of the Laramide intrusions.

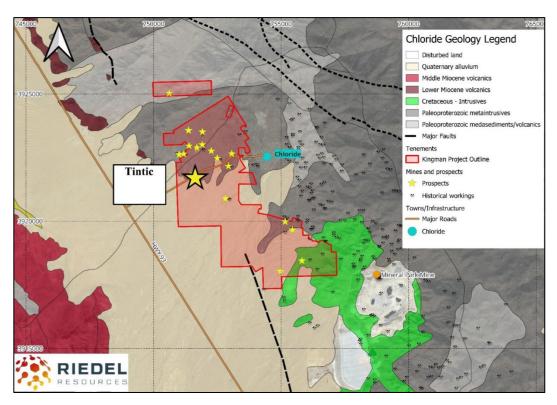


Figure 9: Geology map of the Chloride area. Historical workings are predominantly hosted in the Paleoproterozoic units with the Mineral Park copper-molybdenum porphyry mine abutting the SE claim boundary.

Gold, silver, and base metal mineralisation within the district have been interpreted as structurally controlled Low to Intermediate Sulphidation genetically related to the intrusion of the Ithaca Peak granite which hosts the Mineral Park Cu-Mo porphyry. Mineralisation is characterised by quartz-sulphide veins within all rock types that commonly border and cut through the dykes indicating late-stage mineralisation. Veins within the district are commonly sub-vertical, range from a few inches to 33 feet (~10m) with an average 4ft (~1.2m)



width (Dings, 1951)<sup>1</sup> and a maximum width of 50ft (~15m) recorded at the Silver Hill mine. The largest mines, the Golconda and Tennessee Schuylkill - have a strike length exceeding 1 mile (1.6km) with Dings (1951) estimating an aggregate length of veins within the district to be ~85 miles (~137km).

Tintic was discovered by prospectors in the late 1800s and has not been extensively mined. A main shaft was sunk to 120ft (36.5m) with underground strike driving north and south on the 120ft level for a combined ~246ft (75m). Two winzes on the north and south drives were sunk for ~35ft (10.6m). No stoping took place and there are no accurate records of historical production with mining ceasing in the 1940s due to World War 2.

Gold, silver zinc and lead mineralisation at Tintic is hosted in moderately weathered Paleoproterozoic gneiss, comprising several parallel, northwest striking, shallowly dipping, quartz-sulphide veins. Gabbro and andesite dykes intrude the gneiss units with mineralisation commonly found situated at contact. The Tintic style of mineralisation is common across the Kingman Project and greater Chloride district and is interpreted as low to intermediate sulphidation associated with porphyry copper-molybdenum intrusions, either from the Mineral Park mine, or as yet unidentified intrusions at depth.

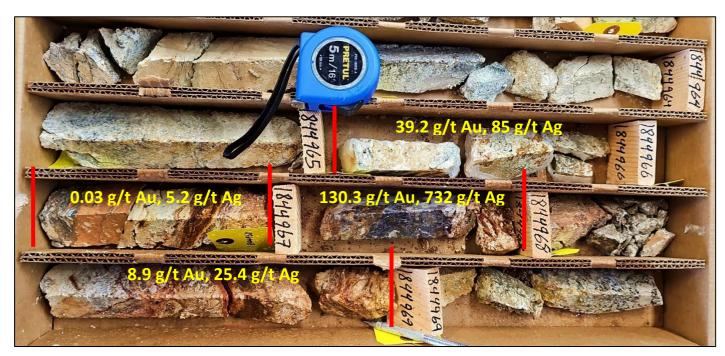


Figure 10: Diamond drill core from hole 2022\_KNG\_13B with 0.76m @ 52.1 g/t Au, 257 g/t Ag, 9.32% Pb and 0.99 % Zn from 20.42m (for details of individual assays shown refer to RIE's ASX Announcement "Exceptional Grades continue at Tintic" on 1/02/2023). Mineralisation is situated in the strongly oxidised weathered domain and is characterised by a massive sulphide vein with galena, pyrite, and sphalerite.

#### **Drilling**

Drilling at the Tintic deposits extends to a vertical depth of approximately 102m and the mineralisation has been modelled from surface to the maximum depth of current drilling. All drilling has been completed by RIE and the mineral resource estimate is based on the data from 135 RC holes and 24 diamond holes. The drill hole spacing throughout much of the project is 40m x 40m, with some infill holes at 10m x 10m. Areas of recently defined mineralisation, depth and strike extensions of the deposits, and some shallow portions of strong mineralisation have been defined with hole spacings between 80m and 100m.

All drill holes have been surveyed by contract field staff using a Trimble DGPS. Recent 2023 RC and diamond holes at Tintic except for RC holes drilled in the Fall of 2021, were down hole surveyed using a Devico RG40

<sup>&</sup>lt;sup>1</sup> Dings, McClelland Griffith, The Wallapai Mining District, Cerbat Mountains, Mohave County, Arizona. GEOLOGICAL SURVEY BULLETIN 978-E., 1951.



Gyro. The gyro utilises north-seeking gyro technology with final surveys generally at 7.6ft (~2.3m) down hole intervals. The 2019 drilling was surveyed using an Eastman single shot camera.

## **Sampling and Sub-Sampling Techniques**

The RC drill holes have been sampled at 2.5ft (0.76m) intervals via a rig mounted cone splitter. Sample recovery in 2021 and 2022 were exclusively wet samples during the operations as per USA industry standards. Samples collected during drilling in 2023 were almost entirely kept dry during drilling operations in the upper oxide with drilling beneath the water table resulting in wet samples.

Diamond drill core was typically PQ2 and HQ3 diameter. Core recovery was generally considered good. Core was sampled by quarter core, generally at maximum intervals of 1.1m and a minimum of 0.15m with boundaries determined by logged geological features.

## **Sample Analysis Method**

Sample preparation for the 2019 diamond core drilling was carried out at the ALS facility in Tucson, Arizona where samples were first crushed then the full sample pulverised before splitting to provide a sub-sample for analysis. Pulverised samples were assaying for gold and base metals at the Reno, Nevada and Vancouver, British Columba facilities respectively. All samples were assayed for gold using a 30g fire assay procedure and analysed by ICP-OES/ICP-AES to provide results for a 48-element suite.

Sample preparation and assaying for the 2021, 2022 and 2023 RC and diamond drilling was carried out at the All American Laboratories (AAL) facility in Reno, Nevada. Samples were first crushed then the full sample pulverised before splitting to provide a sub-sample for analysis. All samples were assayed for gold using a 30g fire assay procedure. 2021 and 2022 drilling were analysed by ICP-AES to provide results for a 36-element suite. 2023 samples were analysed by ICP-AES for Ag, As, Cu, Pb, S and Zn.

QAQC protocols have been incorporated into all drilling programs. This included the use of certified reference material, field duplicates and inter-laboratory umpire checks. The results have confirmed the reliability of the sampling and assay data.

## Resource estimation methodology

Geological and mineralisation constraints were generated on the above basis by Riedel geological staff in Leapfrog and imported into Datamine for estimation. The constraints developed were subsequently used in geostatistics, variography, block model domain coding and grade interpolation. The Mineral Resource was estimated using ordinary kriging ("OK") grade interpolation of 0.75m composited data. Top-cut values were determined by statistical analysis. A threshold distance of influence was applied to some of the domains for Au, Ag, Pb, Zn and As where a top-cut was considered appropriate. The threshold was set to 10m to reflect the drill spacing. Not all domains required top-cutting and there were no sulphur top-cuts.

A single, un-rotated, block model was created with parent block dimensions of 10m(E) by 10m(N) by 2.5m(RL) with sub-cells of 1m(E) by 1m(N) by 0.625m(RL). Kriging Neighbourhood Analysis was undertaken to optimise the search neighbourhood and test the parent block size. The estimate was completed using Ordinary Kriging (OK) of 0.75m length composites into the mineralised domains. The mineralised interpretations defined consistent zone of Au, Ag, Pb, Zn, As and S as defined by logging and assay data. The search ellipse was aligned to subtle changes in the mineralisation trend using dynamic anisotropy. Three search passes were utilised, with decreasing minimum number of samples and increase search distances to ensure the maximum number of cells would be estimated. Any blocks that were not estimated after the third search pass were estimated using Nearest Neighbour techniques.

#### **Bulk Density**

Bulk densities applied to the model were based on density determinations carried out on drill core using he water immersion method. Density has been assigned based on mineralisation and material types. A default



bulk density of 2.45 t/m³ was assigned to all mineralised material; a default bulk density of 1.8 t/m³ was assigned to waste oxidised material; a default bulk density of 2.0 t/m³ was assigned to waste partially oxidised material; a default bulk density of 2.4 t/m³ was assigned to waste transitional material and a default bulk density of 2.7 t/m³ was assigned to waste fresh material.

#### **Mineral Resource Classification**

The Tintic deposit has been classified as an Inferred Mineral Resource and reflects the competent person's view of the deposit. There are no Indicated or Measured Mineral Resources.

The principal criteria for classification of the resource were geological and grade continuity of the mineralised domains, taking into consideration the quality of the sampling and assay data and confidence in the estimation of Au, Ag, Pb, Zn, As and S content.

All fresh material has been set to unclassified to reflect the wider space drilling present at depth and resultant lack of confidence in grade estimation for these domains. All waste material was set to unclassified to reflect the lack of confidence in grade distribution.

The mineral resource classification reflects the relative confidence in the estimate. No formal quantification of the relative accuracy and confidence levels has been undertaken.

#### **Cut-off Grades**

The Mineral Resource estimate for Tintic deposit has been reported above a cut-off grade of 0.8 g/t Au to represent the portion of the Mineral Resource that may be considered for eventual economic extraction by open pit method. The cut-off grade was selected by Reidel in consultation with Snowden-Optiro based on current experience. Given the stage of the deposit and classification applied to the Mineral Resource, the cut-off grades are considered reasonable.

#### Metallurgy

Preliminary metallurgical test work by RIE is currently underway and is due for completion before the end of 2023.

#### **Modifying factors**

At this early stage, no mining and metallurgical, environmental, or other parameters have been considered in the block model. Parameters reflecting mining dilution, ore loss, metallurgical recoveries, and environmental aspects for permitting will be considered during the planned mining evaluation (PEA) of the project.

This announcement has been authorised for release by the Riedel Board.

#### For further information please contact:

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#### **About Riedel Resources Limited**

Riedel Resources Limited (ASX: RIE) is an Australian-based exploration company focused on the exploration of gold, silver and base metals at its Kingman Project in Arizona, USA. Further information can be found at the Company's website at <a href="https://www.riedelresources.com.au">www.riedelresources.com.au</a>



## **Competent Persons' Statements**

## **Exploration Results**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr David Groombridge, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Groombridge is a full-time employee of the Company and has sufficient experience in the style of mineralisation and type of deposit under consideration and qualifies as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' (JORC Code). Mr Groombridge holds securities in Riedel Resources Limited and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Mineral Resources

The information in this announcement which relates to Mineral Resources for the Tintic deposit was prepared by Ms Priscilla Staltari and reviewed by Ms Susan Havlin, both employees of Snowden Optiro. Ms Staltari is a Member of the Australasian Institute of Mining and Metallurgy and Ms Havlin is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy, they have sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2012 edition of the JORC Code. Ms Havlin and Ms Staltari consent to the inclusion of the information in the release in the form and context in which it appears.

## **Forward Looking Statements**

These materials prepared by Riedel include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward-looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward-looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward-looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.



## **APPENDIX 1: EXPLORATION DRILL RESULTS**

**Table 1: Drill Hole Collar Table** 

All coordinates are in grid WGS84/UTM Zone 11N.

Hole ID	Hole Type	Max Depth (m)	Easting	Northing	Collar RL	Dip (°)	Azimut h	Prospect
RC23TT026	RC	108.97	751658	3921563	1148	-60	260	Tintic
RC23TT027	RC	86.87	751718	3921601	1151	-60	260	Tintic
RC23TT028	RC	109.73	751785	3921616	1153	-60	260	Tintic
RC23TT048	RC	88.4	751768	3921787	1156	-60	260	Tintic
RC23TT051	RC	60.9	751421	3922125	1161	-70	260	Tintic
RC23TT052	RC	91.4	751519	3922140	1163	-70	260	Tintic
RC23TT054	RC	60.9	751391	3922037	1158	-70	260	Tintic
RC23TT055	RC	45.7	751415	3921961	1157	70	260	Tintic
RC23TT056	RC	60.9	751422	3921921	1157	70	260	Tintic
RC23TT057	RC	91.4	751430	3921864	1155	70	260	Tintic
RC23TT058	RC	60.9	751536	3921902	1155	-50	240	Tintic
RC23TT059	RC	51.8	751469	3921952	1156	-60	260	Tintic
RC23TT060	RC	45.7	751475	3921881	1153	-60	260	Tintic
RC23TT061	RC	121.9	751638	3922015	1160	70	260	Tintic
RC23TT062	RC	67.0	751463	3921781	1151	-60	260	Tintic
RC23TT063	RC	60.9	751506	3921916	1158	-50	250	Tintic
RC23TT073	RC	144.0	752453	3921073	1152	-60	240	Jim's Trend
RC23TT079	RC	79.2	751322	3922383	1173	-60	260	Tuckahoe South
RC23TT082	RC	103.6	752248	3921713	1163	-60	270	Silver Fox
RC23TT083	RC	73.1	752248	3921713	1163	-75	270	Silver Fox
RC23BC001	RC	67.0	755814	3918462	1189	-45	260	Bobcat
RC23BC005	RC	121.9	756169	3918499	1200	-50	190	Bobcat

Table 2: Significant new drilling results

Cut-offs of >0.3 g/t Au or 20 g/t Ag, and 0.76m internal dilution.

Hole ID	Depth From (m)	Depth To (m)	Downhole Width (m)	Au (g/t)	Ag (g/t)	Pb (ppm)	Zn (ppm)	Prospect
RC23TT026	79.25	80.01	0.76	0.306	0.3	158	152	Tintic
RC23TT027	76.2	78.49	2.29	0.95	1.57	467.33	803	Tintic
RC23TT028	96.01	97.54	1.53	1.78	1.65	678.5	768	Tintic
RC23TT048	71.63	72.39	0.76	1.83	3.2	454	1060	Tintic
RC23TT051	41.91	42.67	0.76	0.65	57.3	502	911	Tintic
RC23TT052	71.63	73.15	1.52	1.42	7.65	1824	16211	Tintic
RC23TT054	3.05	4.57	1.52	4.22	16.6	1413	319	Tintic
RC23TT054	7.62	9.14	1.52	4.96	17.15	1361.5	9029	Tintic
RC23TT055	28.96	29.72	0.76	0.50	734	1841	1692	Tintic
RC23TT056			No San	nple Assaye	t			Tintic
RC23TT057	26.67	27.43	0.76	0.72	36	261	307	Tintic
RC23TT058	38.86	39.62	0.76	0.90	4.5	1803	470	Tintic
RC23TT059	41.91	42.67	0.76	0.61	116	834	1579	Tintic
RC23TT059	24.39	25.91	1.52	2.07	12.45	2139.5	2352	Tintic
RC23TT060			No San	nple Assaye	t			Tintic
RC23TT061	98.3	99.06	0.76	0.74	49.4	882	2249	Tintic
RC23TT062			No San	nple Assaye	t			Tintic
RC23TT063	50.29	51.82	1.53	0.53	4.7	313	627.5	Tintic
RC23TT073	136.4	137.16	0.76	0.44	1.2	51	168	Jim's Trend
RC23TT079	12.19	12.95	0.76	0.3	5.6	316	435	Tuckahoe South
RC23TT082	16.77	17.53	0.76	0.04	36	26	43	Silver Fox
RC23TT083	24.38	26.67	2.29	0.17	87	26	138	Silver Fox
RC23BC001	20.57	21.34	0.76	0.59	0.6	639	207	Bobcat
RC23BC005	52.58	53.34	0.76	0.33	0.9	30	405	Bobcat
RC23BC005	84.58	85.34	0.76	0.33	1.1	55	90	Bobcat



# **Appendix 2: Table 1 JORC Code 2012**

# **Section 1 - Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</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.</li> <li>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 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.</li> </ul>	<ul> <li>All Reverse Circulation (RC) drilling and sampling was undertaken in accordance with industry standards.</li> <li>Samples were collected in both dry and wet conditions depending on ground conditions.</li> <li>RC samples were collected through a rig mounted cyclone with mineralised intervals determined by a geologist and sampled on 2.5ft (0.76m) intervals.</li> <li>Samples collected outside of mineralised zones were collected by spear from 2.5ft sample intervals and composited over 5-10ft (1.52m-3.04m) intervals.</li> <li>When samples were dry, samples were collected through a rig mounted cyclone and deposited into a bucket which was then tipped through a standalone riffle splitter.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	Drilling Inc. using an Atlas Copco CS-14 and drilling both PQ and HQ core.



Criteria	JORC Code explanation	Commentary
		Explorer 1500 Reverse Circulation (RC) utilising a 5-inch bit and face sampling hammer.
Drill sample recovery	<ul> <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>	<ul> <li>run and calculated as a percentage of the drilled interval, in weathered material, core recoveries were generally 80-90%, in fresh rock, the core recovery was excellent at 100%.</li> <li>RC samples from 2021 and 2022 were all wet samples and they were checked visually for recovery, and contamination.</li> <li>2023 samples were routinely checked visually for recovery, moisture, and contamination which was recorded in a database. Samples are considered representative with generally good recovery. Deeper RC holes encountered water, with intervals that have less than optimal recovery and possible contamination.</li> <li>There has been no assessment of core or RC sample recovery and grade.</li> </ul>
		No sample bias is observed.
Logging	<ul> <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>	<ul> <li>2019-2022 geology logging was undertaken for the entire hole recording lithology, veining, mineralisation, and alteration into Excel logging sheets. Diamond core logging is quantitative and qualitative in nature and RC logging was predominantly qualitative in nature. All logs have been validated by the Competent Person and have been uploaded into the cloud hosted MX Deposit database.</li> <li>2019 diamond sample quality data recorded</li> </ul>
		includes recovery and sampling methodology with diamond core visually inspected by the Competent Person for validity.
		2021-2022 RC sample quality data did not record recovery or sample methodology.
		<ul> <li>2022 diamond sample quality data did not record recovery or sample methodology.</li> </ul>
		<ul> <li>2023 geology logging was undertaken for the entire hole recording lithology, oxidation state, metadata, alteration, and veining and is recorded straight into the cloud hosted MX Deposit database.</li> </ul>
		<ul> <li>2023 RC sample quality data recorded includes recovery, sample moisture (i.e., whether dry, moist, wet or water injected) and sampling methodology.</li> </ul>
		<ul> <li>The logging process is appropriate to be used for Mineral Resource Estimates and mining studies with additional metallurgical test work to be completed.</li> </ul>
		All drillholes were logged in full.
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all cores 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> </ul>	<ul> <li>2019 diamond core was marked up for cutting by Riedel staff and shipped to ALS in Tucson, Arizona for cutting. Core was half cut with 1/4 submitted for assay analysis and the remaining core retained at Riedel's Kingman exploration office for reference.</li> </ul>

appropriateness of the sample preparation technique.

Quality control procedures adopted for all subsampling stages to maximise representivity of

samples.

2022 diamond core was marked up for cutting by Riedel staff with intervals of significant clay

content frozen prior to cutting. The core cutting



Kingman

#### Criteria **JORC Code explanation** Commentary Measures taken to ensure that the sampling is was carried out at Riedel's representative of the in-situ material collected, exploration office using a brick saw. for instance for field includina results RC sampling was carried out every 2.5ft duplicate/second-half sampling. (0.76m) and separated by a cone splitter (wet samples) or riffle splitter (dry samples) on a rig Whether sample sizes are appropriate to the grain size cyclone. of the material being sampled. The splitter was routinely cleaned at the end of each drill rod (15ft or 4.5m) or as needed. Within mineralised zones, 2.5ft (0.76m) calico samples collected from the riffle/cone splitter were submitted for analysis. In barren zones spear samples were collected at 5ft-10ft (1.52m-3.04m) composites from the split portion of the sample using a 50mm PVC Holes were sampled over mineralised intervals to geological boundaries on a nominal 2.5ft (0.76m). Field QAQC procedures involve the use of certified reference material (CRM) inserted approximately 1 in 20 samples. Each sample was dried, split, crushed, and pulverised. Sample sizes are considered appropriate for the style of mineralisation - narrow quartzsulphide veins. Diamond and RC samples are appropriate for use in a Mineral Resource Estimate. Quality of The nature, quality and appropriateness of the • assay0 data assaying and laboratory procedures used and whether and the technique is considered partial or total. laboratory Nevada. For geophysical tools, spectrometers, handheld XRF tests instruments, etc, the parameters used in determining followed by AAS. the analysis including instrument make and model, reading times, calibrations factors applied and their Samples at ALS underwent a 33-element suite derivation, etc. 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. over range analysis.

- 2019 diamond samples were submitted to ALS with all remaining samples submitted to American Assay Laboratory (AAL) in Reno,
- ALS analysed Au by Fire Assay fusion (30g)
- (ME-ICP61a code) 4-Acid digestion (nitric, perchloric, hydrofluoric and hydrochloric acid) followed by an ICP-AES finish. Ag > 100 ppm underwent gravimetric analysis and Pb and Zn greater the 10,000pm underwent an ore grade
- AAL analysed Au by Fire Assay fusion (30g) followed by ICP-AES finish. Over range results greater than 100 ppm Au and Ag were further analysed using gravimetric finish.
- Samples submitted to AAL underwent a 5-Acid (hydrochloric, hydrofluoric, digestion perchloric, nitric and sulphuric) followed by ICP-AES. In 2021 and 2022 a 35-element suite was completed and in 2023 a 6-element suite was analysed including Ag, As, Cu, Pb, S and
- The techniques are considered quantitative in
- As discussed previously, CRMs were inserted by the Company and the laboratory also carries out internal standards in individual batches.
- Sample preparation for fineness were carried by AAL and AAL as part of their internal procedures to ensure a grind size of 90% passing 75 micron was being attained.



Criteria	JORC Code explanation	Commentary
		<ul> <li>The limited duplicate analysis for samples reveals that precision of samples is within acceptable limits.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned drillholes.</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>	<ul> <li>independently verified.</li> <li>No twinned holes have been completed.</li> <li>Assay results have been received electronically and have been checked, verified, and merged into the Company's cloud hosted MX Deposit database.</li> <li>Original laboratory data files in CSV and PDF formats are stored together with the merged data and on Riedel's server.</li> <li>No adjustments have been made to assay</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drillholes (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>	<ul> <li>Drill collars have been picked up using a Trimble RTX® R3 to an accuracy of +/- 50mm.</li> <li>2019 DD holes were surveyed using a Reflex single-shot camera approximately every 50ft (15m).</li> <li>Down hole surveys for 2021, 2022 and 2023 DD and RC (except Fall 2021 drill program) were down hole surveyed using a DeviGyro RG40 north seeking gyro tool. Surveys were completed by Stockholm Precision Tools in 2021 and 2022, and by Earth Drilling in 2023.</li> <li>Azimuths are determined using a handheld Brunton compass.</li> <li>Downhole surveys are uploaded to the MX Deposit, a cloud-based data management program where surveys are validated and approved by the geologist.</li> <li>The grid projection is WGS 84 UTM zone 11N.</li> <li>Diagrams and location table are provided in the report.</li> </ul>
Data spacing and distribution	<ul> <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>	<ul> <li>Within the limits of the Mineral Resource, the drill hole spacing varies from 40m x 40m, with some infill holes at 10m x 10m. Areas of recently defined mineralisation, depth and strike extensions of the deposits, and some shallow portions of strong mineralisation have been defined with hole spacings between 80m and 100m.</li> <li>Based on the drilling programs carried out, the mineralised domains are deemed to provide a strong basis for geological control and continuity of mineralisation and are considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code.</li> <li>No Ore Reserve estimations are presented.</li> <li>No sample compositing has been applied except in the reporting of drill intercepts, as described in this table.</li> </ul>



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <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>	<ul> <li>approximately perpendicular to the strike and dip of the mineralisation where known.</li> <li>The holes are generally angled at -53° which provides good intersection angles into the mineralisation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are collected by Company personnel in calico bags, which are in turn placed in plastic bags.</li> <li>Plastic bags are transferred into bulka bags for transport which are secured on wooden pallets and transported directly via road freight (FedEx Express) to the laboratory with a corresponding submission form and consignment note.</li> <li>The laboratory checks the samples received against the submission form and notifies the Company of any missing or additional samples.</li> <li>Once the laboratory has completed the assaying, the pulp packets, pulp residues and coarse rejects are held in the Laboratory's secure warehouse. On request, the pulp packets are returned to the site warehouse on secure pallets where they are stored.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No external audits or reviews have been undertaken at this stage of the programme.



# **Section 2 - Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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 licence to operate in the area.</li> </ul>	<ul> <li>The entire Mineral Resource lies within a claim package held by Flagstaff Minerals (USA) Inc which forms part of Kingman Project.</li> <li>Riedel Resources achieved \$5m spend milestone and has acquired 51% of Flagstaff Minerals (USA) Inc ("Flagstaff"). Refer to Riedel's ASX announcement dated 28/03/2023.</li> <li>Riedel is earning a 90% interest in Flagstaff via a further \$5m spend now underway. Refer to Riedel's ASX announcement dated 2/05/2023.</li> <li>The claims are administered by the Bureau of Land Management and are in good standing. Riedel is unaware of any impediments to obtaining a licence to operate in the area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Prospectors first arrived in northwest Arizona in the 1840s and identified silver, gold, copper, zinc, lead and turquoise mineralisation along the Cerbat Mountains of Mohave County.</li> <li>No accurate production figures exist for Tintic with limited mining occurring which concentrated around 6 small shafts and pits. The main shaft was sunk to 120ft (36.5m) with underground strike driving north and south on the 120ft level for a combined ~246ft (75m). Two winzes on both north and south drives were sunk for ~35ft (10.6m). No stoping took place. World War 2 resulted in many of the mines ceasing operations.</li> <li>In 1997 Chandeleur Bay Resources completed a drilling program at the Tintic deposit that consisted of 15 DD for 2,826 ft (~861m) and 22 RC for 3710 ft (~1130.8m).</li> <li>None of the previous historical mining or exploration work can be verified and is not considered to be of JORC standard.</li> </ul>
Geology	Deposit type, geological setting, and style of mineralisation.	<ul> <li>The Kingman Project is located along the western flank of the Paleoproterozoic (Cerbat Mountains of the Mohave Province in northwest Arizona.</li> <li>The Cerbat Mountains are a typical block-faulted range of the Basin and Range physiographic province of the southwest United States and consists of Supracrustal metasedimentary and metavolcanic rocks including pillow basalts, which have been intruded by granitoids including the Diana and Chloride Granitoids.</li> <li>Supracrustal rocks within the Cerbat Mountains were subjected to two periods of metamorphism and deformed at granulite facies and are represented by amphibolite's, migmatitic garnet-biotite schists, gneiss quartz-feldspathic gneisses, impure quartzite, and rate metachert and BIF. Granitoids have been deformed into biotite- and hornblende bearing quartzofeldspathic gneiss, with contacts and internal fabrics parallel to foliation within the enclosing wall rocks.</li> <li>Cretaceous to Eocene (80-40Ma) granites were intruded into the Cerbat Mountains during the Laramide Orogeny. These porphyry Cu-Mo intrusions extend NW-SE from Sonora in Mexico to the Mineral Park deposit situated 8km to the SE of Tintic and abuts the Projects Claims.</li> <li>Mineralisation within the Project consists of multiple NW-NNW striking, structurally controlled vein-systems of Intermediate to Low-Sulphidation Epithermal character. Mineralisation consists of quartz, sphalerite, galena and pyrite with associated gold and silver.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drillhole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:         <ul> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole 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>	<ul> <li>Drill hole location and directional information provided within the body of the report and within Tables 1 and 2.</li> <li>All drilling is included in the plan view maps.</li> </ul>
Data aggregation methods	<ul> <li>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.</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>	<ul> <li>Grades are reported as down-hole length weighted averages.</li> <li>Headline composite grades reported to a minimum cut-off grade of 0.3 g/t Au or 20 g/t Ag with maximum internal dilution of 2.5ft (0.76m).</li> <li>Results in Appendix 1 are reported to a minimum cut-off grade of 0.3g/t Au or 20 g/t Ag with maximum internal dilution of 2.5ft (0.76m).</li> <li>No top-cuts have been applied to reporting of assay results.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole 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 (e.g., 'down hole length, true width not known').</li> </ul>	<ul> <li>The drill holes are interpreted to be approximately perpendicular to the strike of mineralisation.</li> <li>All mineralised intervals reported are approximate, but are not true width, as drilling is not always perpendicular to the strike/dip of mineralisation.</li> <li>Reported mineralised intersections are estimates.</li> <li>Confirmation of true widths will only be possible when all results are received, and final geological interpretations have been completed.</li> </ul>
Diagrams	<ul> <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 of the drillhole collar locations and appropriate sectional views.</li> </ul>	Plans and sections are provided in numerous ASX releases and within the main body of the report.



Criteria	JORC Code explanation	Commentary
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 avoiding misleading reporting of Exploration Results.	<ul> <li>All drill collar locations are shown in figures and all results.</li> <li>New exploration results, including those with no significant assays, are provided in the main body of the Announcement.</li> <li>The report is considered balanced and in context.</li> </ul>
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; potential deleterious or contaminating substances.	<ul> <li>Extensive metallurgical test work has commenced as part of the economic assessment of the project.</li> <li>All other meaningful and material data is reported.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale stepout 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> <li>identified impediments.</li> <li>A cultural survey across the Tintic area has been completed and final report is due in December 2023.</li> </ul>



# **Section 3: Estimation and Reporting of Mineral Resources**

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	been generate by Riedel since 2019. It has been systematically recorded and is stored in a cloud hosted MX Deposit database.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>Several site visits have been carried out to the Kingman Project by David Groombridge (Reidel, Competent Person for the data and geological interpretation) in 2023.</li> <li>Neither Susan Havlin (Snowden Optiro, Co-Competent Person for the Mineral Resource Estimation) and Priscilla Staltari (Snowden Optiro, Co-Competent Person for the Mineral Resource Estimation) have visited site.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternate interpretations on the Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	3D Leapfrog software. All available data has been used to help build the geological interpretation, with the integration of geological logging, drill hole assay data and geological maps. Geological logging (lithology, alteration and mineralogy) and all assays from reverse circulation (RC) and diamond drilling data were used to inform the interpretations. Gold and silver grade were principal drivers in the interpretations; however they were not the sole control, and were used in combination with the other analytical and logging data.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<u> </u>



Criteria	JORC Code explanation	Commentary
	·	<ul> <li>Tintic is a potential open pit mining proposition which has been mined historically with underground handheld methods.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>MX Deposit- database storage software.</li> <li>Leapfrog Geo -Material type (weathering) and mineralisation wireframes.</li> <li>Snowden Supervisor - geostatistics, variography, declustering, top-cut analysis, kriging neighbourhood analysis (KNA), validation</li> <li>Datamine Studio RM - Drill hole validation, cross-section, plan and long-section plotting, block modelling, geostatistics, Ordinary Kriging (OK) estimation, block model validation, classification, and reporting.</li> <li>Estimation techniques: The estimate was completed employing OK grade estimation of 0.75m length composites. The mineralised interpretations defined consistent zones of gold, silver, lead, zinc, arsenic and sulphur mineralised material as defined by logged geology and/or assay data.</li> <li>The drill density is at a sufficient spacing that OK is considered appropriate to inform a local estimate.</li> <li>The grade distributions for all variables were assessed for the need for top-cutting to restrict the local impact of a limited number of outlier grades.</li> <li>Gold, silver, lead, zinc, arsenic and sulphur were estimated into the mineralised and waste domains.</li> <li>Block model and estimation parameters:</li> <li>0.75 metre downhole composite data was interpolated into parent blocks using OK grade estimation.</li> <li>Treatment of extreme grade values – the distance that outlier grades could influence was restricted using a threshold distance set for a defined top cut value within estimation domains.</li> <li>The top-cut value was determined through the analysis of histograms, log histograms, log probability plots and spatial analysis. In the mineralised domains: <ul> <li>Gold (Au) top-cut values ranged from 10g/t to 50g/t Au.</li> <li>Silver (Ag) top-cut values ranged from 15,000 g/t to 270g/t Ag Lead (pb) top-cut values ranged from 15,000 g/t to 270g/t Ag Lead (pb) top-cut values ranged from 15,000 g/t to 270g/t Ag.</li> <li>Arsenic (As) top-cut values were set to 15,000 g/t A.</li> <li>No top-cuts were set fo</li></ul></li></ul>



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		along strike, 23m across strike and 5m down dip. The maximum continuity range for Ag was 151m along strike, 50m across strike and 15m down dop. The maximum continuity range for Pb was 87m along strike, 40m across strike and 5m down dip. The maximum continuity range for Zn was 63m along strike, 43m across strike and 4m down dip. The maximum continuity range for As was 56m along strike, 73m across strike and 6m down dip. The maximum continuity range for S was 53m along strike, 45m across strike and 19m down dip.
		<ul> <li>Kriging Neighbourhood Analysis (KNA) was undertaken to optimise the search neighbourhood used for the estimation and to test the parent block size. The search ellipse and selected samples by block were viewed in three dimensions to verify the parameters.</li> </ul>
		<ul> <li>Model rotation – No rotation has been applied to the model.</li> </ul>
		Block Sizes
		Parent block size for both mineralised and waste domains is - 10 m(E) by 10 m(N) by 2.5 m(RL) (parent cell estimation with full subset of points).  Smallest sub-cell for both mineralised and waste
		domains— 1 m(E) by 1 m(N) by 0.625m(RL).  Parent cell discretisation for the mineralisation and waste model is 5 X by 5 Y by 5 Z (using the number of points method).
		<ul> <li>Search ellipse was aligned to subtle changes in the mineralisation trend using dynamic anisotropy for mineralised domains.</li> </ul>
		Number of samples: Determined by KNA
		Search 1 (all elements): Minimum samples per drill hole is 6, maximum samples is 22 and a maximum search equal to the variogram range. Search 2 (all elements): Minimum samples per drill hole is 4, maximum samples is 22 and a maximum search equal to 2 times the variogram range. Search 3 (all elements): minimum samples per drill hole is 4, maximum samples is 22 and the maximum search is 5 times the variogram range.
		<ul> <li>Maximum composites per drillhole is 4 samples to reduce any grade smearing from non-optimised drill orientations.</li> </ul>
		<ul> <li>Maximum distance of extrapolation from data points is ~100 m from sample data to Inferred boundary.</li> </ul>
		Domain boundary conditions:
		Mineralisation Domains: 6 mineralised domains were supplied. Gold was estimated within each domain with hard boundaries applied between the domains. The various material types - oxidised, partially oxidised, transition and fresh material, were coded into the model and composites. Contact analysis between the material types with each domain was performed and identified hard boundaries for gold between the various material types within a domain. No boundary was identified between the material types within a domain for the other elements Ag, Pb, Zn, As, S. These elements were subsequently estimated within their domain boundary only, with hard boundaries

Waste: Au, Ag, Pb, Zn, As and S were estimated into the waste domain with a hard boundary between the



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		<ul> <li>material types and a hard boundary to the mineralised domains.</li> <li>Mineralised domains which had very low sample populations and could not be estimated were assigned the naïve mean grade of the composites.</li> <li>The following validation checks were performed:</li> <li>Comparison of the volume of wireframe vs the volume of block model.</li> <li>Checks on the sum of gram metres prior to compositing vs the sum of gram metres post compositing.</li> <li>Checks to confirm no negative grades are present.</li> <li>Comparison of the model average grade and the declustered sample grade by domain and analyte.</li> <li>Generation of swath plots by Domain, for northing, easting and elevation.</li> <li>Visual check of drill data vs model data in plan, section and three dimensions.</li> <li>All validation checks gave appropriate results and confirmed the estimation parameters. There has been no reconciliation check with historic mining.</li> </ul>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture and the method of determination of the moisture content.	<ul> <li>Moisture was not considered in the density assignment (dry densities used). Bulk density values used were</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-of grade(s) or quality parameters applied</li> </ul>	
Mining factors Or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The MRE is reported under conditions where the Company believes there are reasonable prospects of eventual economic extraction through standard open pit operations.  It is considered that there are no mining factors which are likely to affect the assumption that the deposit has reasonable prospects for eventual economic extraction.
Metallurgical factors or assumptions	The basis for assumptions of predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous.	s g g al e e al s s



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	Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	•
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made</li> </ul>	during the MRE.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	using the Archimedean Principle using the water immersion method for individual core samples. A total of 87 density measurements were taken. Dry bulk density has been assigned based on mineralisation and material type.  • A default bulk density of 2.45 t/m³ was assigned to all mineralised material.  • A default bulk density of 1.8 t/m³ was assigned to waste oxidised material.  • A default bulk density of 2.0 t/m³ was assigned to waste partially oxidised material.  • A default bulk density of 2.4 t/m³ was assigned to waste transitional material.
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Mineral Resource.</li> <li>There are no Indicated or Measured Mineral Resources.</li> <li>The principal criteria for classification were geological and grade continuity of the mineralised lodes and taking into account the quality of the sampling and assay data and confidence in estimation of Au, Ag, Pb, Zn, As and S content.</li> <li>The applied Mineral Resource classification reflects the Competent Persons' view of the deposit.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul> <li>Internal peer review has been undertaken during the Mineral Resource estimation process. No external review has yet been undertaken.</li> </ul>



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Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</li> </ul>	relative confidence in the estimate. No formal quantification of the relative accuracy and confidence levels has yet been undertaken.