15 February 2024

1.3 million ounces upgraded to Indicated category from RAS infill drilling

Santana Minerals Limited (ASX:SMI) ("Santana" or "the Company") is delighted to advise that infill drilling completed at its Rise & Shine (RAS) discovery has so far delivered an upgrade to the Indicated Resource category of 464% to the upper (open-pittable) portion of the deposit.

All of the 1.293Moz Indicated Resources fell within a pit optimisation shell to validate its Reasonable Prospect for Eventual Economic Extraction (RPEEE).

The infill drilling completed over the past 12 months has resulted in a slightly varied geological interpretation and enabled a firmer interpretation of ore shapes at a slightly lower grade compared to the February 2023 Mineral Resource Estimate (MRE). The revised RAS MRE is tabulated below:

Feb 2024 RAS Mineral Resources at 0.5g/t cut-off (with 40g/t top-cut)				
Deposit	Category	Tonnes (Mt)	Au (g/t) rounded	Contained Gold (koz)
RAS	Indicated	17.1	2.4	1,293
	Inferred	13.7	2.1	923
RAS Total	**Indicated and Inferred**	**30.8**	**2.2**	**2,216**

Table 1 – February 2024 MRE at 0.5g/t cut off with 40g/t top cut

Santana CEO, Damian Spring said:

"This is a fantastic result for the Company and sets a solid foundation for the commencement of mine development studies. Our resource model is slightly varied but is now tighter and has a clear, consistent and predictable higher-grade core that can be the foundation of initial mining studies.

The RAS ore system remains open down plunge and we continue our infill drilling aimed at converting more of our Inferred resource to Indicated category which would likely suit underground mining methodologies.

We now have a critical mass to enable initial mine development studies to commence and that is the immediate focus of our team and the Company."

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Rise & Shine Discovery – Infill Drilling

As shown in Figure 1 below, there has been an increase in drill hole density with tighter line spacing to approximately 30m east-west on 40m north-south sections over the upper 1km of plunge of the defined ore system.

To date, some 74,049 metres of diamond drilling has been completed at RAS, which includes 47,952 metres of diamond drilling in the current infill program. Infill drilling is continuing on the deeper/down plunge part of the system and another 4,009 metres has been drilled since the database was closed off for the February 2024 MRE. The drilling continues at a reduced rate on deeper parts of the RAS ore system as the Company shifts its focus on the economic extraction of the upper Indicated resource.

In Figure 1, purple drill holes represent intercepts of over 100 gram x metres, with red holes being between 50 and 100 gram metres, depicting a higher-grade core at RAS that spans over 150m in width and extends well over 1km down plunge.

The simple geometry of the RAS discovery is also illustrated in the following schematic long section and cross sections A, B and C.
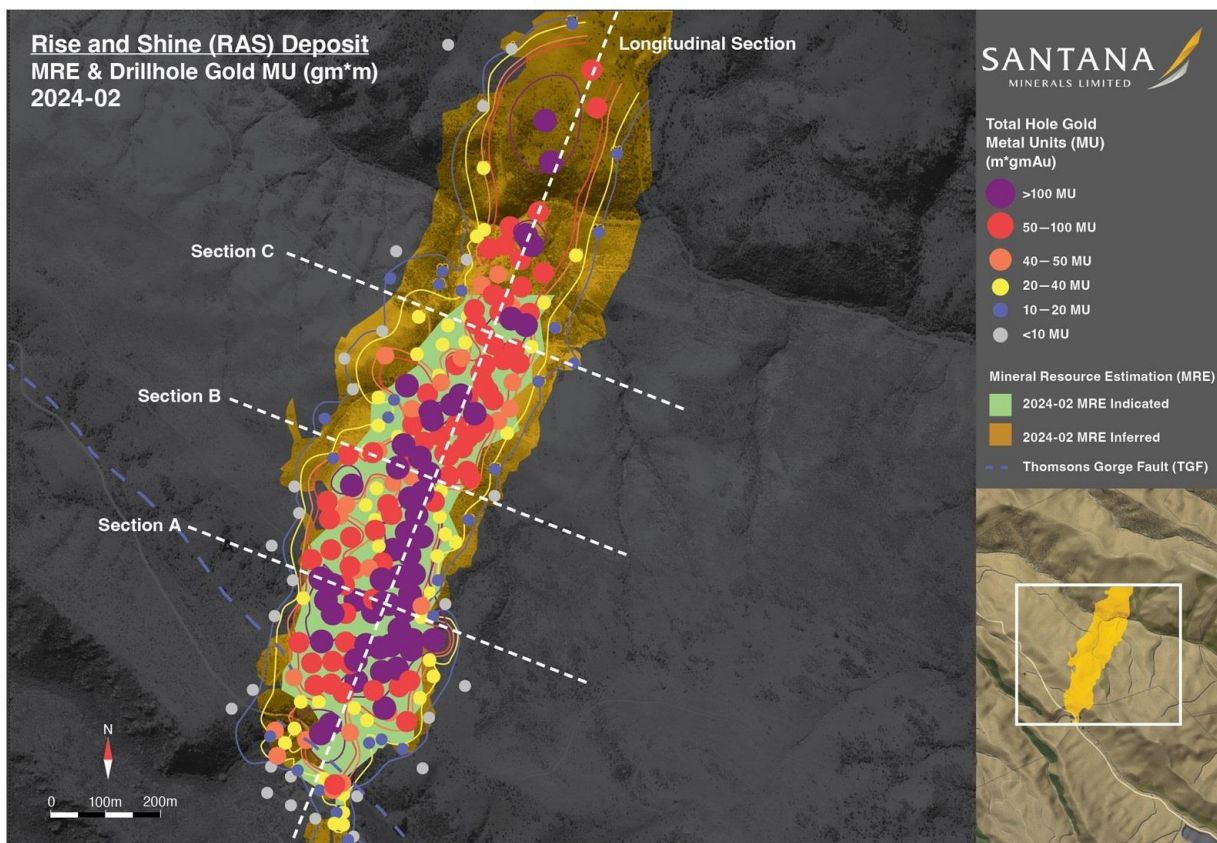

Figure 1 - Plan view of RAS drill holes included in the 2024 MRE showing a 150m+ wide high grade core

As can be seen in Figure 2 below, the long section, which is located in the plan view in Figure 1 above, extends through the centre of the higher-grade core around 1.7km down plunge.
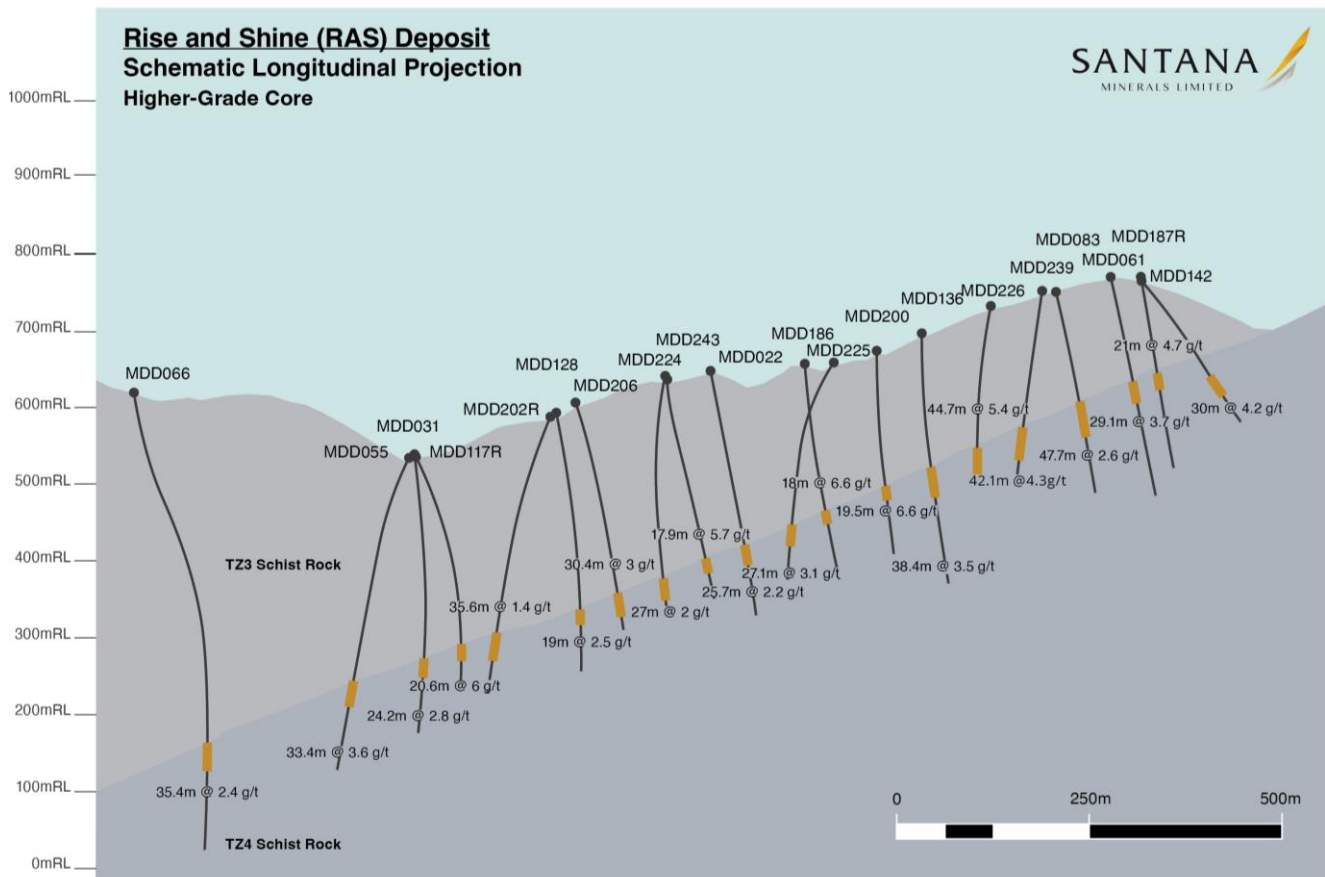
Figure 2 – Schematic Long Section showing consistent thick, high grade intercepts traced 1.7km down plunge.

The cross sections illustrated below in Figure 3, 4 and 5 show the typical result of infill drilling, with repeating results in the high-grade core and the rapid decline of grade and thickness along the margins, further reinforcing the model of structural control on the mineralisation that defines the higher-grade core and the deposit as a whole.
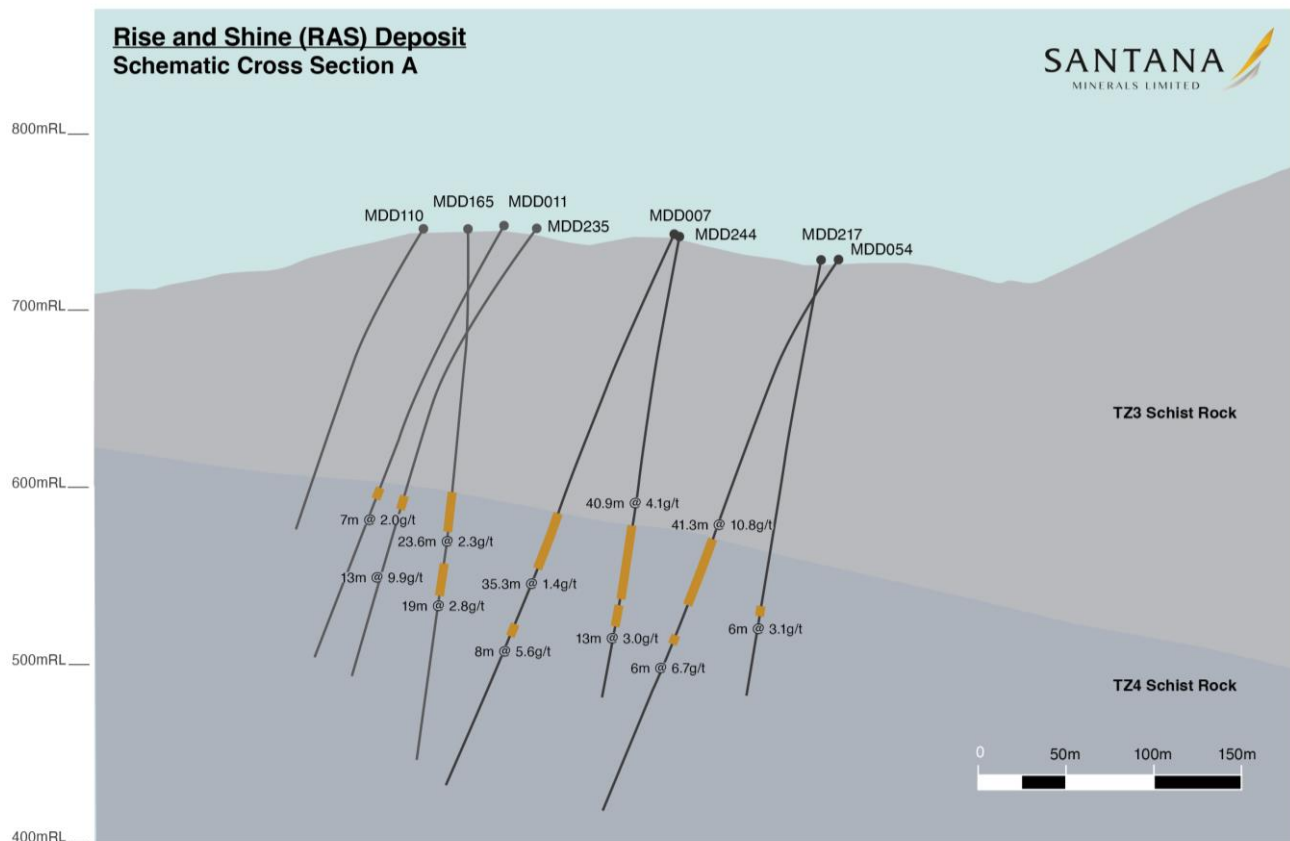
Figure 3 – Schematic Cross Section A showing thick tabular higher-grade core of orebody.
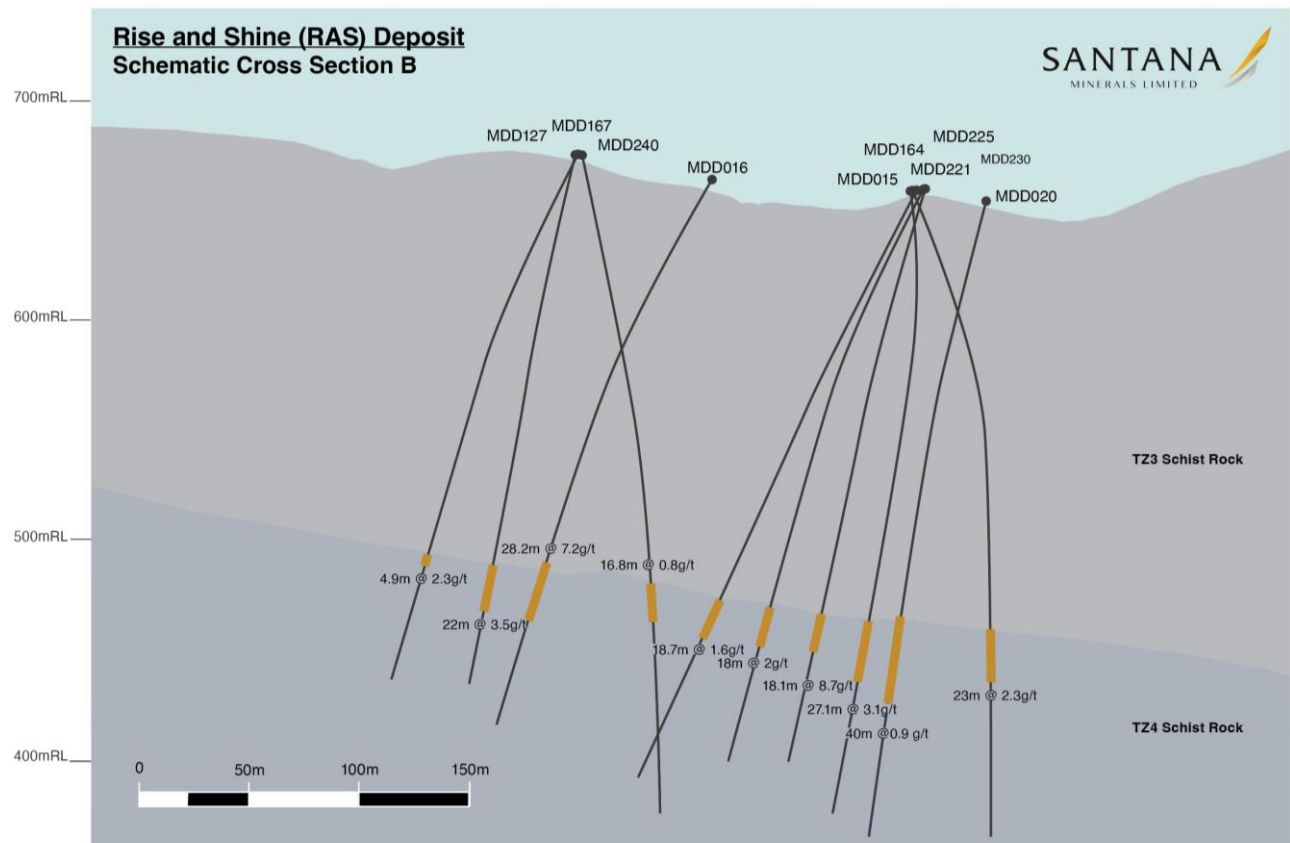

Figure 4 – Schematic Cross Section B showing thick tabular higher-grade core of orebody.
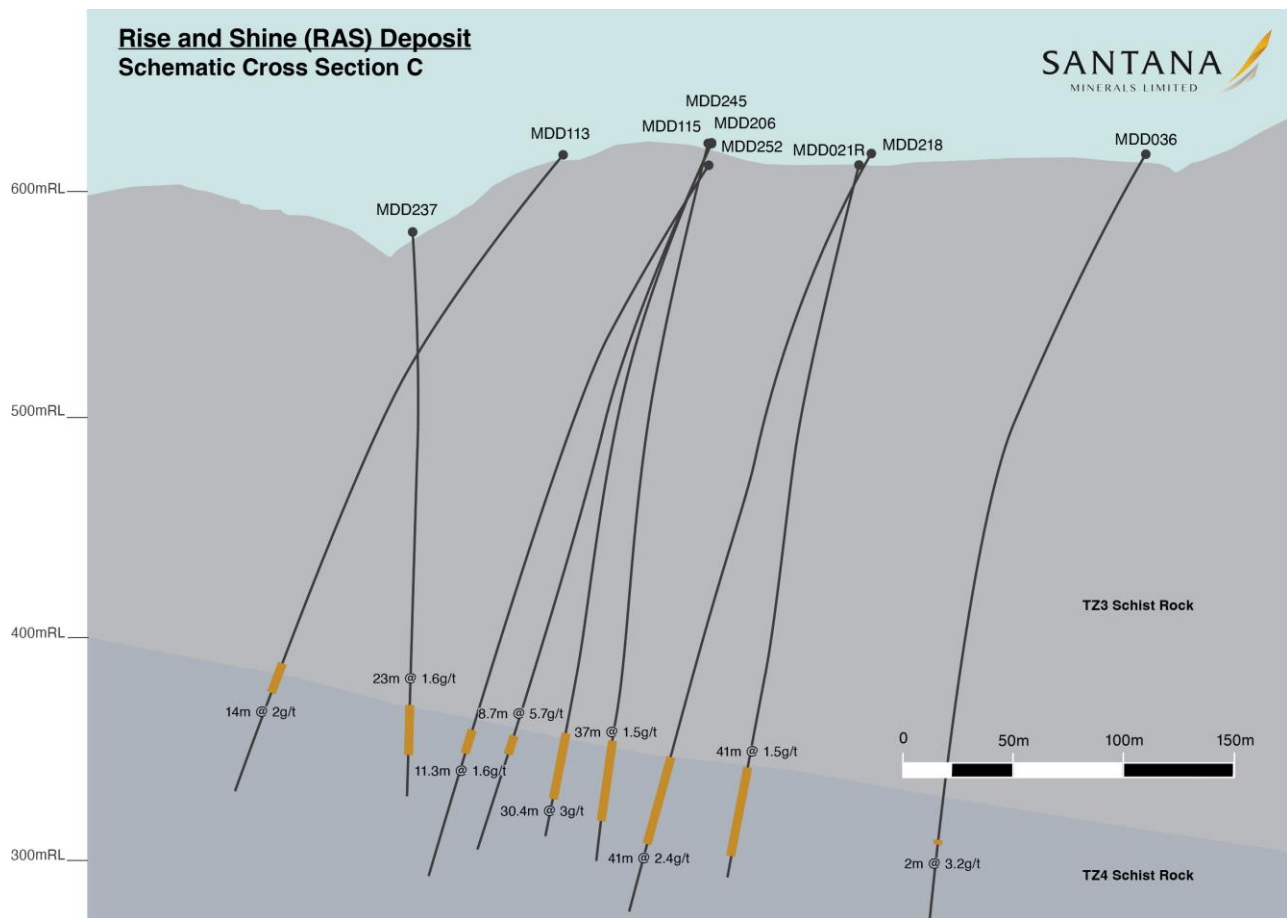
Figure 5 – Schematic Cross Section C showing thick tabular higher-grade core of orebody.

Rise and Shine (RAS) 2024 Mineral Resource Estimate (MRE)

Following the discovery of extensive mineralisation under cover at RAS, a substantial amount of drilling has been completed. The first phase of wide spaced drilling broadly defined the RAS ore system and an initial total resource estimate of 2.66 million ounces was tabulated (Refer to ASX announcement titled "RAS Resource Upgrade – 1 Million ounces added at higher gold grades" dated 2 February 2023).

Since then, multiple diamond drill rigs have been actively infill drilling the mineral resource. To date, the upper 1km of the 'so far' 1.7km plunge of the RAS orebody has been infilled to a nominal grid of 30m spacing x 40m (hole separation).

The infill drilling data has enabled our geologists and resource estimation consultants to re-interpret and more confidently define the ore system. This has resulted in a shift in categorisation from Inferred to Indicated with a comparable 464% growth in the Indicated category to now total approximately 1.3 million ounces.

The Company has elected at this point to quantify the resource even though infill drilling is continuing, as it believes this current update underwrites an initial phase of mining studies and the future completion of a pre-feasibility study for mine development and permitting applications.

The new Mineral Resource Estimate (Feb 2024) for RAS is tabulated below:

Feb 2024 RAS Mineral Resources at 0.5g/t cut-off (with 40g/t top-cut)				
Deposit	**Category**	**Tonnes (Mt)**	**Au (g/t) rounded**	**Contained Gold (koz)**
RAS	Indicated	17.1	2.4	1,293
	Inferred	13.7	2.1	923
RAS Total	**Indicated and Inferred**	**30.8**	**2.2**	**2,216**

Table 2 – February 2024 MRE at 0.5g/t cut off with 40g/t top cut

Importantly, the mineral resource model is greatly improved, and the infill drilling has revealed a structurally controlled and higher-grade zone within the orebody which contains the majority of the metal and makes for an outstanding ore system from a mining perspective.

Infill drilling is ongoing with the objective of continuing to upgrade the JORC 2012 categorisation of the deeper resource. This is however at a slower pace and recognises that such ore will only be accessible much later in any development plan and possibly only by underground mining methods.

The huge positive in the revised mineral resource estimate comes with grade, the majority of which is dominated by a distinct, predictable and consistent higher-grade core as evidenced by the small reduction in overall metal as the cut-off grade increases.

RAS Mineral Resource Estimate at various cut-off grades is summarised below with the grade-tonnage curve following:

Feb 2024 RAS Combined Mineral Resources at various cut-off grades				
Category	**Au Cut-off Grade (g/t)**	**Tonnes (Mt)**	**Au grade (g/t) rounded**	**Contained Gold (koz)**
Indicated	2.00	6.6	4.2	903
	1.50	9.2	3.5	1,046
	1.00	12.8	2.9	1,191
	0.50	17.1	2.4	1,293
Inferred	2.00	5.4	3.5	610
	1.50	7.8	3.0	744
	1.00	10.3	2.6	842
	0.50	13.7	2.1	923
Total MRE	**2.00**	**12.0**	**3.9**	**1,513**
	1.50	**17.0**	**3.3**	**1,790**
	1.00	**23.1**	**2.7**	**2,033**
	0.50	**30.8**	**2.2**	**2,216**

Table 3 – February 2024 MRE at various reporting cut offs

The attached grade- tonnage curve enables a broad view of tonnage and grade at various levels and also enables a snapshot of potential commercial options available for the RAS deposit in the lead up to commercial studies.
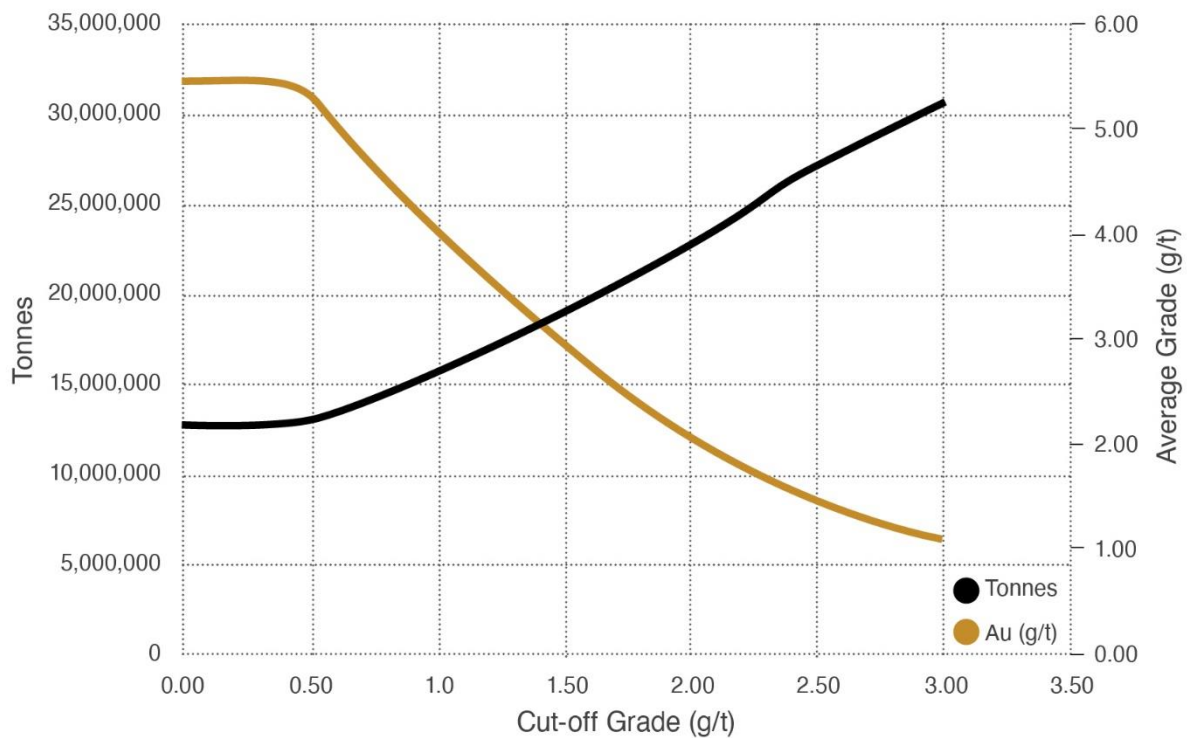
Figure 6 - Grade-Tonnage curve of RAS Feb 24 MRE

Comparison with Previous MRE Estimates

The new resource and the infill drilling, with tighter definition of mineralisation controls has delivered a net reduction in total ounces within the overall RAS orebody. Whilst this, on a total metal basis appears as a down-grade, the Company considers it to be a more favourable outcome for future development as the majority of metal is now positioned within a more defined core which should lead to more positive mine economics.

There has been a modest drop in overall tonnage, as ore shapes at the 0.5g/t cut-off were better defined by drilling. More holes on the periphery of the higher-grade core returned lower grades resulting in a drop in overall grade and a 16.8% drop in global ounces.

RAS Deposit - Mineral Resource Estimate Comparisons						
JORC 2012	**MRE Feb. 2024**			**MRE Feb. 2023**		
Category	tonnes	g/t Au	'Kilo oz's	tonnes	g/t Au	'Kilo oz's
Indicated	17.1	2.4	1,293	2.0	4.3	279
Inferred	13.7	2.1	923	31.5	2.4	2,383
RAS Total	**30.8**	**2.2**	**2,216**	**33.5**	**2.5**	**2,662**

Table 4 – February 2024 MRE vs February 2023 MRE

Reasonable Prospect of Eventual Economic Extraction ("RPEEE") Validation

The MRE as reported was subjected to mining economic analysis with highly favourable outcomes.

The process included a Lerchs Grossman algorithm pit-optimisation applying a gold price of US$2,380/oz (approx. 18% above current spot price) to allow for reasonably foreseeable future gold prices within the anticipated mine-life. Other key and typical modifying factors were applied including a metallurgical recovery of 90% as demonstrated by the Phase 5 metallurgical testing (refer ASX announcement of 23 October 2023), an overall pit slope angle of 45° and industry correlated mining, ore processing and administration operating costs.

Notably the pit shell extracted 95% of the total MRE ounces and 100% of the Indicated Resource ounces. The final restraint on the pit was related to strip-ratios caused by terrain (i.e. hill slopes) as opposed to continuity of the ore system.
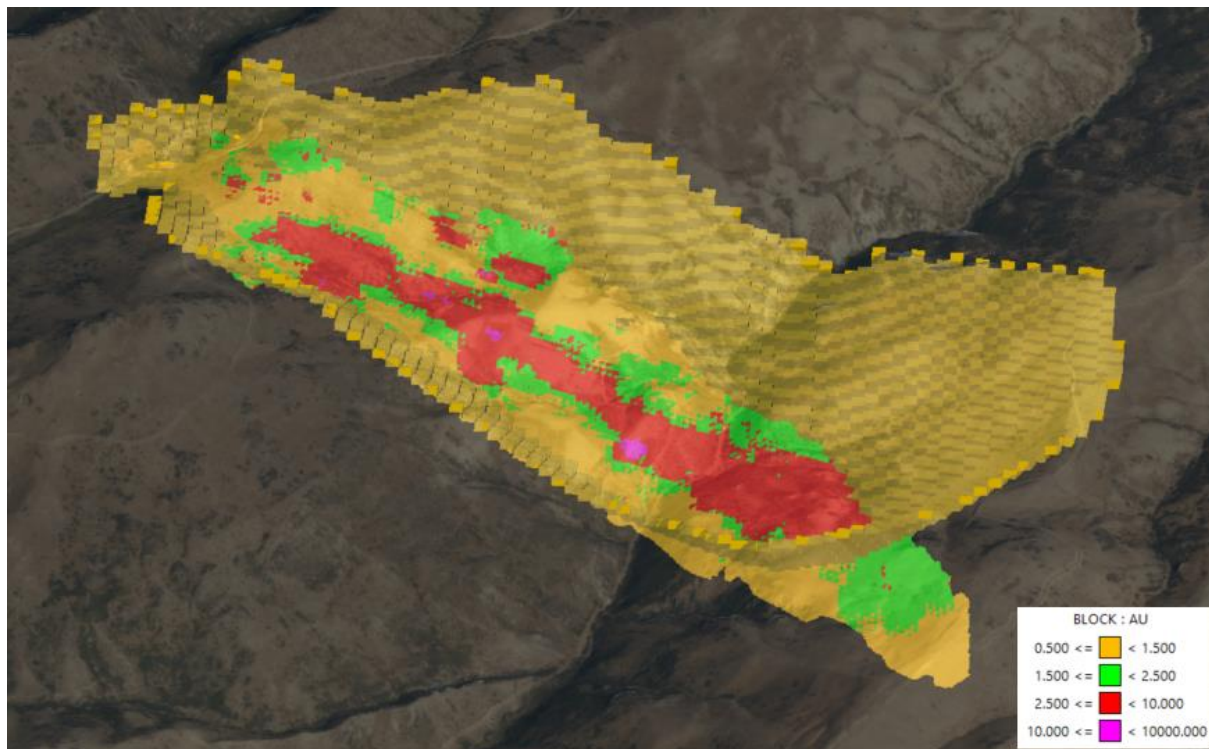

Figure 7 – RPEEE pit shell looking SW with Shepherds Creek in the foreground and RAS Creek top left.

Analysis of the deeper material or remaining 5% (all Inferred) beneath the pit was assessed for a further reasonable prospect of economic extraction at a 1.5g/t cut-off. Applying underground mining parameters at a 1.5g/t cut-off grade showed that 100% of the material could be economic after RPEEE analysis. Tabulations at various grades are shown below:

Feb 2024 RAS - RPEEE Resource analysis by Open Pit at various cut-off grades				
Category	Au Cut-off Grade (g/t)	Tonnes (Mt)	Au grade (g/t)	Contained Gold (koz)
Indicated	2.00	6.6	4.2	903
	1.50	9.2	3.5	1,046
	1.00	12.8	2.9	1,191
	0.50	17.1	2.4	1,293
Inferred	2.00	4.2	3.8	516
	1.50	5.9	3.2	607
	1.00	8.3	2.6	705
	0.50	11.7	2.1	786
Total	2.00	10.8	4.1	1,419
	1.50	15.0	3.4	1,653
	1.00	21.2	2.8	1,896
	0.50	28.8	2.3	2,079

Table 5 – February 2024 MRE RPEEE analysis cut offs

Feb 2024 RAS – RPEEE analysis by U/G mining at various cut-off grades				
Category	Au Cut-off Grade (g/t)	Tonnes (Mt)	Au grade (g/t)	Contained Gold (koz)
Indicated	2.00	0.0	0.0	0
	1.50	0.00	0.0	0
Inferred	2.00	1.2	2.4	94
	1.50	2.0	2.2	137
Total	2.00	1.2	2.4	94
	1.50	2.0	2.12	137

Table 6 – February 2024 MRE RPEEE analysis cut offs for potential underground mining

Future Technical Studies

The new and revised MRE (February 2024) for the RAS orebody lays the foundation for future technical studies including an indicative mining economic study and the completion of a pre-feasibility study (PFS) which will set a pathway for mining approvals.

A further complete cycle of metallurgical test work is approaching completion on a master composite selected to be representative of the Indicated resource. This will enable accurate plant design and cost estimation for a planned processing facility.

To further validate that work a series of 10 variability composites representing different parts, grade and mineralisation aspects of the Indicated resource will be completed.

A number of other detailed studies aligned with the upcoming PFS and subsequent mine approvals are advancing in parallel. These include the Tailings Storage, Waste Rock Characterisation, Slope Stability and Site Geotechnical analysis, Hydrology, Water, Ecological, Aquatic Ecology, Climate and Economic Output studies.

Ends.

This announcement has been authorised for release by the Board.

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Bendigo-Ophir Project Mineral Resource Estimate

The Project contains a Mineral Resource Estimate (MRE) calculated at a cut-off grade of 0.5 g/t Au with top cuts applied, as at February 2024:

Deposit	Category	tonnes (Mt)	Au grade (g/t)	Contained Gold (koz)
RAS[1]	Indicated	17.1	2.4	1,293
	Inferred	13.7	2.1	923
RAS Total	Indicated and Inferred	30.8	2.2	2,216
CIT[2]	Inferred	1.2	1.5	59
SHR[2]	Inferred	4.7	1.1	174
SRE[2]	Inferred	0.3	1.3	11
RSSZ Total	Indicated	17.1	2.4	1,293
	Inferred	21.7	1.7	1,152
RSSZ Total	Indicated and Inferred	38.8	2.0	2,445

Table 7 – February 2024 Bendigo-Ophir MRE at 0.5 g/t

Previous Disclosure - 2012 JORC Code

Information relating to Mineral Resources, Exploration Targets and Exploration Data associated with the Company's projects in this announcement is extracted from the following ASX Announcements:

- ASX announcement titled "More high grades from RAS Infill drilling" dated 4 April 2023
- ASX announcement titled "New Gold assays and metallurgical results from RAS" dated 24 April 2023
- ASX announcement titled "High grade intercept from infill drilling south of RAS ridge" 2 June 2023
- ASX announcement titled "RAS high grade zones expand with drilling results" dated 22 June 2023
- ASX announcement titled "Infill drilling at RAS continues to grow confidence" dated 13 July 2023
- ASX announcement titled "High grade zones strengthen ahead of RAS MRE Update" dated 27 July 2023
- ASX announcement titled "New results extend potential for upcoming RAS MRE" dated 30 August 2023
- ASX announcement titled "Drill results confirm and extend high grade mineralisation" dated 8th September 2023
- ASX announcement titled "Strong RAS and regional drill results" dated 23 October 2023
- ASX announcement titled "More High Grade Gold from Rise and Shine Prospect" dated 23 November 2023
- ASX announcement titled "Bendigo-Ophir Exploration and Project Update" dated 04 January 2024
- ASX announcement titled "High-Grade Intercepts Close out Resource Drilling at RAS" dated 24 January 2024

A copy of such announcements are available to view on the Santana Minerals Limited website www.santanaminerals.com. The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the CompetentPerson's findings are presented have not been materially modified from the original market announcements.

Current Disclosure - Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Kim Bunting and Mr Hamish McLauchlan who are Fellows of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Bunting is a Director and Mr McLauchlan is a consultant and both have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which thay are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Bunting and Mr McLauchlan consent to the inclusion in this report of the matters based on their information in the form and context in which it appears. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified. Mr McLauchlan is eligible to participate in STI and LTI schemes in place as performance incentives for key personnel.

The information in this report that relates to 2024 RAS Mineral Resource Estimates (MRE) is based on work completed by Mr Kerrin Allwood, a Competent Person (CP) who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Allwood is a Principal Geologist of GeoModelling Limited, Petone, New Zealand and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is 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". Mr Allwood consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Allwood and GeoModelling Limited are independent of Santana Minerals Ltd.

The information in this report that relates to prior 2021 Mineral Resource Estimates (2021 MRE) for CIT, SHR and SRE deposits completed by Ms Michelle Wild (CP) (ASX announcement on 28 September 2021) continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified.

Forward Looking Statements

Forward-looking statements in this announcement include, but are not limited to, statements with respect to Santana's plans, strategy, activities, events or developments the Company believes, expects or anticipates will or may occur. By their very nature, forward-looking statements require Santana to make assumptions that maynot materialize or that may not be accurate. Although Santana believes that the expectations reflected in the forward-looking statements in this announcement are reasonable, no assurance can be given that these expectations will prove to have been correct, as actual results and future events could differ materially from those anticipated in the forward-looking statements. Accordingly, viewers are cautioned not to place undue reliance on forward-looking statements. Santana does not undertake to update publicly or to revise any of the included forward-looking statements, except as may be required under applicable securities laws.

Appendix 1 - Additional RAS Mineral Resource Estimate Information

Sampling

This Rise and Shine (RAS) Mineral Resource Estimate (MRE) is based on 22 RC holes (2,004.5m) and 243 DD holes (71,542.5m). 78 wet RC samples were omitted from use in the resource estimate due to concerns about downhole sample contamination and bias due to the washing away of fines. Similarly, all 96 legacy 'blasthole' samples, 104 surface trench and 14 underground channel samples were omitted from use in the resource estimate due to the absence of documentation describing sampling methods.

RC drilling was sampled using a three-tier riffle splitter producing a 2kg – 4kg 12.5% sub-sample. DD core was triple tube PQ3 and HQ3. Core orientation is attempted on each DD run and successful unless the rock is broken. DD core is sub-sampled as half core using a core saw unless friable or unconsolidated in which case a trowel is used. DD core is sampled from approximately 5 m above the TGF to the end of hole. The TZ3 schist above the TGF is uniformly un-mineralised.

Assaying & QAQC

After the omission of low quality data as described above, 22,843 fire assays (FA), 320 BLEG assays, 109 Photon assays and 137 screen fire assays (SFA) were available for use in the MRE. All the fire assays were prepared by crushing the entire sample to 80% passing 2mm. Prior to 2019 a 200g rotary split sub-sample was pulverized in a ring mill to 85% passing 75µm. A 50g charge was then sub-sampled and assayed by fire assay with AAS analysis. 877 samples were assayed this way. After 2019 the sample preparation procedure was changed so that a 1000g rotary split sub-sample was pulverized in a ring mill to 85% passing 75 um from which a 50g charge was sub-sampled and fire assayed. 12,623 samples were assayed this way. Where multiple assay results exist for a single sample an assay method ranking was used to select data for export from the database with Photon > SFA > BLEG > 1000g pulp FA > 200g pulp FA.

Field duplicates, coarse blanks, pulp standards, pulp duplicates, pulp replicates and umpire laboratory pulp repeats are all used at a rate of 1 per 20 routine samples to assess sample quality. The results of these QC samples show no material assay bias. Standards and blanks perform well. Pulp duplicates, pulp repeats and umpire laboratory pulp repeats show no bias but high variance. The high pulp variance is attributed to the presence of coarse gold forming flakes in the ring mill. The presence of coarse gold is demonstrated by logged visible gold, optical mineralogy (up to 400 µm) and preliminary metallurgical testwork.

The coarse rejects of a further ~5% of samples are re-submitted as QC check samples which involve pulp FAA re-assays by the original and an umpire laboratory and CREJ re-assayed by 500-gram (+ & -75mu) screen fire assay (SFA), 1kg BLEG (LeachWELL) and 2*500-gram Photon analysis (PHA) for gold. The results of these assays showed comparable results to the paired FA results.

Snowdon Optiro completed a desktop review of the assay methods and QC sample results in February 2023 and concluded that the sampling and assaying methods are in line with standard industry procedures. Snowden Optiro consider that the assay data in the supplied database is suitable to be used as the basis for a Mineral Resource Estimate.

Surveying & Density Measurements

Drill collar locations are surveyed by RTK GPS. The surface topography was surveyed by LiDAR. RC downhole surveys are taken with the Reflex multi-shot tool within the inner stainless-steel tube behind the hammer. All diamond holes have been surveyed using a north seeking Precision Mining and Drilling gyro survey tool with survey records at 1m interval.

The bulk density of 1,700 core samples was measured by core immersion. The core was not routinely coated, allowing water to penetrate voids, however the rocks have very low porosity due to metamorphism. 100 samples of fresh (un-weathered) core were tested by the routine method and by wax coating to check for the effect of the water ingress on the bulk density measurements. There was no difference in the average value or the CV of the two methods.

Resource Estimation

The gold grade domains were created using Leapfrog software (v 2023.1.0) which created a 50% probability iso-surface wireframe using a radial basis function (rbf) interpolation of a 0.2 g/t Au indicator of 2 m composites. The rbf used a 'structural trend' comprising an an-isotropy of 3:3:1 oriented parallel to the manually interpreted TGF and parallel to a manually interpreted very steeply east dipping, north striking zone identified in the west of the deposit. The TGF footwall and steep zone were manually interpreted from logged lithology and oriented structural data (specifically quartz veins). The gold domains were also restricted to below the footwall of the TGF. Some below indicator grade samples are included within the gold grade domains and some above indicator grade samples are excluded from the gold grade domains because the rbf estimates the probability of points in space being above or below the indicator grade.

Manual grade orientation domains were used to split the Leapfrog gold grade wireframe into an east dipping (roughly parallel to the TGF) domain and a steeply dipping domain. 94.5% of the samples are within the east dipping domain.

The TGF and quartz vein orientations were used to guide the domain interpretations and to inform the orientation of likely variogram model axes.

0.2 g/t Au domain grade criteria was selected because it is sufficiently below the likely resource reporting cut-off grade (previously 0.25 g/t) that the resource would largely be constrained by block grade estimation rather than interpretations based on sample support.

Oxidation domains were interpreted from logged oxidation and weathering. Weathering is shallow with complete oxidation typically to 10m depth and partial oxidation a further 10 m – 20 m below.

The raw assay data was composited to 2.0m, honouring gold domain boundaries with composites less than 1.0m long distributed equally within their domain. All statistics, variography and grade interpolation was done using the composited data.

The coefficient of variation (CV) of the composites was 5.3 on the east dipping domain and 2.2 in the steep domain.

Outlier grade limits determined from log histograms and cumulative probability plots were used to restrict the spatial influence of extremely high grades by domain, being 40 g/t Au in the east dipping domain and 20 g/t Au in the steep domain.

The same variogram model was used in all domains. The variogram model was determined from experimental variograms of composites below the outlier limit grade (40 g/t Au) in the east dipping domain. There are insufficient data in the steep domain to create robust experimental variograms, therefore the east dipping domain variogram model was appropriately rotated to reflect the geometry of the steep domain. The variogram model had a relative nugget effect of 52% and two sills. The major axis was parallel to the intersection of the steep zone and the east dipping zone (19/357), the semi-major axis 16/093 and the minor axis 65/220. The total ranges were 125 m for the major axis, 55 m for the semi-major axis and 35 m in the minor axis direction.

Blocks were interpolated by ordinary kriging of the top cut composites using a minimum of 4 and a maximum of 15 composites from within a 150m by 150m by 50m ellipsoid oriented parallel to the variogram model. A maximum of 7 composites were used per quadrant from a minimum of two quadrants. Gold domain boundaries were treated as hard boundaries. Parent blocks were 25m (E) by 25m (N) by 5m (vertical), sub-blocked to 6.25m by 6.25m by 0.5m. The block model parent blocks are approximately 25% of the typical drill spacing. The parent block size was selected as a compromise between honouring the domain geometry / volume and minimizing block grade estimation error.

Bulk density was interpolated by inverse distance squared weighting into the fresh and partial oxidation domains from 1,700 bulk density measurements. There was insufficient data in the oxide domain to allow interpolation. Bulk density was assigned to un-interpolated blocks by oxidation domain based on the median values of the bulk density samples in each oxidation domain, being 2.3 t/m3 in oxide, 2.65 t/m3 in partially oxidized and 2.70 t/m3 in fresh material.

The block model was validated against drilling grades visually in section and in plan, by the use of swath plots and by comparison of the block model volumes to domain wireframe volumes.

The MRE was classified using input data quality, confidence in the geological interpretations and the kriging slope of regression (a function of grade continuity and data (drilling) configuration). In general, indicated resources are reported from continuous zones of un-ambiguous geological interpretation and in block grades where the nearest composite was less than 25 m away, the average composite distance was less than 40 m and kriging slope of regression was greater than 0.6.

The resource reporting cut-off grade (0.5 g/t Au) and the assessment of reasonable prospects of eventual economic extraction are based on metallurgical recovery indicated by gravity / CIL test work, processing, mining and G & A costs from comparable projects and revenue from a gold price of USD$1,830/oz escalated by 30% to allow for reasonably foreseeable future gold prices within the anticipated 5 to 20-year mine-life. The resource estimate was constrained at depth by a pit shell optimised using these economic factors and an assumed overall pit slope of 45°.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	This Mineral Resource Estimate (MRE) is estimated from drilling samples collected by reverse circulation and diamond drilling. 'Blasthole', surface trench and underground channel samples were used as an aid for geological interpretation and domaining but not for grade estimation. Diamond drill (DD) core samples for laboratory assay are typically 1 metre samples of diamond saw cut ½ diameter core. In the rare cases where the core was friable or unconsolidated the sample was collected from one side of the core using a scoop. Where distinct mineralisation boundaries are logged, sample lengths are adjusted to the respective geological contact. RC samples were sub-sampled at 1.0 m intervals using a rotary splitter mounted below the cyclone. The splitter produced 2 x 30% splits and 1 x 40% split. The two 30% splits were used as primary sample and field duplicate (if submitted) with the 40% split used for logging and then stored at the MGL core yard. Samples are crushed at the receiving laboratory to minus 2mm (85% passing) and split using a rotary splitter to provide 1kg for pulverising in a ring mill to -75um. Pulps are fire assayed (FAA) using a 50g charge with AAS finish. Prior to 2019 only 200g of the crushed material was pulverised. 877 samples were assayed this way. Certified standards, blanks and field replicates are inserted with the original batches at a frequency of ~5% each for QAQC purposes. All pulps and crush reject (CREJ) are returned from the laboratory to MGL for storage on site. Of these returned samples, a further ~5% are re-submitted as QC check samples which involve pulp FAA re-assays by the original and an umpire laboratory and CREJ re-assayed by 500-gram (+ & -75mu) screen fire assay (SFA), 1kg BLEG (LeachWELL) and 2*500-gram Photon analysis (PHA) for gold. Where multiple assays exist for a single sample interval, larger samples are ranked in the database: PHA > BLEG > SFA > FAA. All returned pulps are analysed for a suite of 31 elements by portable XRF (pXRF). The sampling, sub-sampling and assaying methods are appropriate to the geology and mineralization of the RAS deposit.

Criteria	JORC Code explanation	Commentary
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Current drilling techniques are diamond coring (DD) PQ3 and HQ3 size triple tube. Where PQ3 core size (83mm diameter) is commenced this is maintained throughout the DD hole until drilling conditions dictate reduction in size to HQ3 core (61mm diameter). DD pre-collars are drilled open hole through un-mineralised TZ3 schist to within about 15 m of the mineralisation hangingwall at which point diamond coring commences.

RC drilling is only carried out where the mineralisation target is less than about 150m downhole and used a face sample bit with sample collected in a cyclone mounted over a rotary splitter producing 2 x 30% splits and 1 x 40% split. The two 30% splits were used as primary sample and field duplicate (if submitted) with the 40% split used for logging and then stored at the MGL core yard.

Drillholes are oriented to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable.

All drill core is oriented to assist with interpretation of mineralisation and structure using a Trucore orientation tool. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.*

Measures taken to maximise sample recovery and ensure representative nature of the samples.

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. | DD core sample recoveries are recorded by the drillers at the time of drilling by measuring the actual distance of the drill run against the actual core recovered. The measurements are checked by the site geologist.

When poor core recoveries are recorded the site geologist and driller endeavour to immediately rectify any problems to maintain maximum core recoveries.

DD core logging to date indicate ~96% recoveries.

RC sample recovery is measured as sample weight recovered. RC sample moisture for all RC drilling data was logged as dry (83.7% of RC samples), moist (12.0%) or wet (4.3%). All samples logged as wet were omitted from use in this MRE.

The drilling contract used states for any given run, a level of recovery is required otherwise financial penalties are applied to the drill contractor to ensure sample recovery priority along with production performance.

Sample grades were plotted against drilling recovery by drilling method and no relationship was established.

Wet RC samples do show higher grades than dry RC samples. This may be due to wet RC samples coming from higher grade zones or sampling bias due to the loss of fines in wet samples. Whatever the cause, this bias was the reason that wet RC samples were omitted from use in this MRE. |

Criteria	JORC Code explanation	Commentary
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.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	All DD holes have been logged for their entire sampled length below upper open hole drilling (nominally 0-450 metres below collar). Data is recorded directly into AcQuire database with sufficient detail that supports Mineral Resource estimations (MRE). Logging is mostly qualitative but there are estimations of quartz and sulphide content and quantitative records of geological / structural unit, oxidation state and water table boundaries. Oriented DD core allows alpha / beta measurements to determine structural element detail (dip / dip direction) to supplement routine recording of lithologies / alteration / mineralisation / structure / oxidation / colour and other features for MRE reporting, geotechnical and metallurgical studies. All RC chips were sieved and logged for lithology, colour, oxidation, weathering, vein percentage and sulphide minerals. All core is photographed wet and dry before cutting. Sieved RC chips are also photographed. 100% of all relevant (within the gold grade domains) intersections were logged. The logging is of sufficient quality and detail for resource estimation.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *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.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Industry standard laboratory sample preparation methods are suitable for the mineralisation style and involve oven drying, crushing and splitting of samples to 1kg for pulverising to -75um. Pulps are fire assayed (FAA) using a 50g charge. 50g charge is considered minimum requirement for the coarse nature of the gold. Larger screen fire assays (SFA), 1kg BLEG (LeachWELL) and 2*500gm Photon Analyses (PHA) are conducted periodically as a QAQC check. Field duplicates of RC samples are sub-sampled by a splitter as described above at the time of sampling. Large diameter (83mm) PQ3 core was maintained (where conditions allow) for DD holes to MDD016 and subsequently HQ3 (61mm) for drillholes MDD017 onwards. DD core drill samples are sawn in ½ along the length of the core on cut lines marked by geologists' perpendicular to structure / foliation or to bisect vein mineralisation for representative samples whilst preserving the orientation line. Intervals required for QAQC checks are nominated by geologists and the crushed sample being split by the laboratory with the two replicated samples then assayed.

Criteria	JORC Code explanation	Commentary
		QA procedures used to maximise the representivity of sub-samples include the use of a cone splitter on the RC rig and cutting DD core perpendicular to the regional foliation. QC procedures to assess the representivity of sub-sampling include field replicates, standards, and blanks at a frequency of ~5% and also cross-lab assay checks at an umpire laboratory.

The mass proportion of every 10th sample passing 75um is reported by the laboratory and monitored to ensure sample preparation quality.

Calculations based on Pitard (1993) show that sub-sample masses are appropriate to gold particle size and grade, if the size and shape of the gold particles are reduced in the ring mill in a similar way to the gangue particles. |

Criteria	JORC Code explanation	Commentary
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.*

For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.

Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. | , SFA and PHA are all total gold assays and are appropriate to the RSSZ mineralization. DD core and RC chip samples for gold assays undergo sample preparation by SGS laboratory Westport and 50g fire assay with an AAS finish (SGS method FAA505 DDL 0.01ppm Au or FAD505 DDL 1ppm Au & FAD52V DDL 500ppm Au) by SGS laboratory Waihi. Other SGS laboratories at Macraes and Townsville and the ALS laboratory in Townsville, are used from time to time and follow the same processes. For laboratory QAQC, samples (3*certified standards, blanks and field replicates) are inserted into laboratory batches at a frequency of ~5% respectively. A selection of 5% of retained lab pulps across a range of grades are sent for re-assay and to an umpire laboratory for cross-lab check assays.

Portable XRF (pXRF) instrumentation is used onsite (Olympus Innov-X Delta Professional Series model DPO-4000 equipped with a 4 W 40kV X-Ray tube) primarily to identify arsenical samples (arsenic correlates well with gold grade in these orogenic deposits). The pXRF analyses a 31-element suite (Ag, As, Bi, Ca, Cd, Cl, Co, Cr, Cu, Fe, Hg, K, Mn, Mo, Nb, Ni, P, Pb, Rb, S, Sb, Se, Sn, Sr, Th, Ti, V, W, Y, Zn, Zr) utilising 3 beam Soil mode, each beam set for 30 secs (90 secs total). pXRF QAQC checks involve regular calibration (every 20 samples) and QAQC analyses of SiO2 blank, NIST standards (NIST 2710a & NIST 2711a), & OREAS standards. pXRF QAQC checks involve regular calibration (every 20 samples) and QAQC analyses of SiO2 blank, NIST standards (NIST 2710a & NIST 2711a), & OREAS standards.

No geophysical tools have been used in this MRE. |

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	Significant gold assays and pXRF arsenic analyses are checked by alternative senior company personnel. Original lab assays are initially reported and where replicate assays and other QAQC work require re-assay or screen fire assays, the larger sample results are adopted. To date results are accurate and fit well with the mineralisation model. Twinned data is available where DD core holes have been sited adjacent to previous RC drillholes and where DD redrills have occurred. pXRF multi-element analyses are directly downloaded from the pXRF analyser as csv electronic files. These and laboratory assay csv files are imported into the database, appended and merged with previous data. Since October 2022 all logging has been directly entered into the Acquire database using tablets. All collar surveys, downhole surveys and assay results are provided digitally and directly imported into the database. On import into the database validation checks are made for: interval overlaps, gaps, duplicate holes, duplicate samples and out of range values. The AcQuire database is stored on a cloud server and is regularly backed up, updated and verified by an independent qualified person. The only adjustment made to the data on import to the database is to convert below detection results to negative the detection limit. Samples with multiple Au results are ranked by assay method (SFA > FA > other) and on export only the highest ranked method is exported. Prior to import into Minesight software the data is further validated as above plus checks on the highest and lowest values. Negative below detection results are converted to half the detection limit on import into Minesight.

Criteria	JORC Code explanation	Commentary
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.* *Specification of the* *grid system used.* *Quality and adequacy of topographic control.*	All drillhole collar locations are accurate (+/- 50mm) xyz coordinates when captured by an experienced surveyor using RTK-GPS equipment. All drill holes reference the NZGD2000 NZTM map projection and collar RLs the NZVD2016 vertical datum. DD down hole surveys are recorded continuously with a Precision Mining and Drilling "North-seeking" Gyro downhole survey tool. RC holes are surveyed at 12m intervals using a Reflex multi-shot camera. There are very minor historical adits and shafts at RAS. No surveys of these voids exist, although at least one adit is still accessible. Historical production records total 630.5 tons of ore crushed. Such small volumes are not material to this MRE. Topographic control is provided by LiDAR topographic surveys in 2018 and 2021 covering the entire project area. These are very accurate and suitable for resource estimation.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *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.* *Whether sample compositing has been applied.*	Drill collar site locations in steep terrain are dictated by best access allowed by contour tracks with gradients to allow safe working access and drill pad excavations. Drillhole designs take into account this variation to achieve evenly spaced intercepts at the hangingwall of the mineralisation. Drillhole intersection spacing on the hangingwall of the mineralisation is typically 30 m (EW) by 30 m (NS) but varies from 20 m (EW) by 20 m (NS) in closely spaced areas to 120 m (EW) by 100 m (NS) in widely spaced (inferred) areas. This spacing is considered appropriate for determination of geological and grade continuity at the mineral resource categories reported. Some of the RC drilling was sampled as 4m composites and later re-sampled if the composite result exceeded a threshold. There are no composited samples within the gold grade estimation domains and so no composited samples were used in this MRE. Sampling and assaying are in one metre intervals or truncated to logged features.
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.* *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.*	Drillholes are oriented to intersect known mineralised features in a nominally perpendicular orientation as much as is practicable. True widths are estimated perpendicular to mineralisation boundaries where these limits are known. As the deposits are tabular and lie at low angles, there is not anticipated to be any introduced bias for resource estimates.
Sample security	*The measures taken to ensure sample security.*	Company personnel manage the chain of custody from sampling site to laboratory. DD drill core samples are transported daily from DD rig by the drilling contractor in numbered core boxes to the Company secure storage facility for logging and sample preparation. After core cutting, the core for assay is bagged, securely tied, and weighed before being placed in polyweave bags which are securely tied. Retained core is stored on racks in secure locked containers. RC samples are also place in polyweave bags and secured with zip ties. Polyweave bags with the calico bagged samples for assay are placed in plastic cage pallets, sealed with a wire-tied cover, photographed, and transported to local freight distributer for delivery to the laboratory. On arrival at the laboratory photographs taken of the consignment are checked against despatch condition to ensure no tampering has occurred.

Criteria	JORC Code explanation	Commentary
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	An independent Competent Person (CP) conducted a site audit in January 2021 and December 2022 of all sampling techniques and data management. No major issues were identified, and recommendations have been followed. In February 2023 Snowdon Optiro completed a desktop review of the assay methods and QC sample results and in its report concluded that the sampling and assaying methods are in line with standard industry procedures and that that the assay data in the supplied database is suitable to be used as the basis for a Mineral Resource.

Section 2 Reporting of Exploration Results

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.* • *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.*	Exploration is being currently conducted within Mineral Exploration Permit (MEP) 60311 (252km²) registered to Matakanui Gold Ltd (MGL) issued on 13th April 2018 for 5 years. In 2023 the term of this permit was extended for a further 5 years until 12 April 2028. There are no material issues with third parties. MGL was granted Minerals Prospecting Permit (MPP) 60882 (40km²) on 30 Nov 2023 for a term of 2 years. The tenure of the Permits is secure and there are no known impediments to obtaining a licence to operate. As gold is a Crown mineral, a royalty is payable to the Crown as either the higher of an ad valorem royalty of 2% of the net sales revenue or an accounting profits royalty of 10%. The Project is subject to a 1.5% Net Smelter Royalty (NSR) on all production from MEP 60311 (and successor permits) payable to an incorporated, private company (Rise and Shine Holdings Limited) which is owned by the prior shareholders of MGL (NSRW Agreement) before acquisition of 100% of MGL shares by Santana Minerals Limited. Access arrangements are in place with landowners that provide for current exploration and other activities, and any future decision to mine. As such, compensation is payable, including payments of up to $1.5M on a decision to mine, plus total royalties starting at 1% on the net value of gold produced, increasing to 1.5% and ultimately 2% dependent on location and total gold produced over the life of the mine. The royalties are also subject to pre-payment of up to $3M upon commencement of mining operations.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Early exploration in the late 1800's and early 1900's included small pits, adits and cross-cuts and alluvial mining.
		Exploration has included soil and rock chip sampling by numerous companies since 1983 with drilling starting in 1986. Exploration in the 1990's commenced with a search for Macraes style gold deposits along the RSSZ. Drilling included 13 RC holes by Homestake NZ Exploration Ltd in 1986, 20 RC holes by BHP Gold Mines NZ Ltd in 1988 (10 of these holes were in the Bendigo Reefs area which is not part of the MRE area), 5 RC holes by Macraes Mining Company Ltd in 1991, 22 shallow (probably blasthole) holes by Aurum Reef Resources (NZ) Ltd in 1996, 30 RC holes by CanAlaska Ventures Ltd from 2005-2007, 35 RC holes by MGL in 2018 and a further 18 RC holes by MGL in 2019.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The RSSZ is a low-angle late-metamorphic shear-zone, presently known to be up to 120m thick. It is sub-parallel to the metamorphic foliation and dips gently to the north- east. It occurs within psammitic, pelitic and meta-volcanic rocks.
		The hangingwall of the RSSZ is truncated by the post metamorphic and post mineralisation Thomsons Gorge Fault (TGF). The TGF is a regional low-angle fault that separates upper barren chlorite (TZ3) schist from underlying mineralised biotite (TZ4) schists.
		Gold mineralisation is occurs in the RSSZ as 4 known deposits with Mineral Resource Estimates (MRE) – Come-in-Time (CIT), Rise and Shine (RAS), Shreks (SHR) and Shreks-East (SRE). The gold and associated pyrite/arsenopyrite mineralisation at all deposits occur along micro-shears, and in brecciated / laminar quartz veinlets within the highly- sheared schist. There are several controls on mineralisation with apparent NNW, N and NNE trending structures all influencing gold distribution. Shear dominated mineralisation within the top 20-40m of the shear zone immediately below the Thomsons Gorge Fault (TGF). Stacked stockwork vein swarms (SVS) occur deeper in the RSSZ.
		Unlike Macraes, the gold mineralisation in the oxide, transition and fresh zones is characterised by coarse free gold.

Criteria	JORC Code explanation	Commentary

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:*
	
	    o *easting and northing of the drill hole collar*
	
	    o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	
	    o *dip and azimuth of the hole*
	
	    o *down hole length and interception depth*
	
	    o *hole length.*
	
	- *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.*
		Not applicable as no exploration results are being reported.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.* •	Not applicable as no exploration results are being reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Not applicable as no exploration results are being reported.
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.*	Not applicable as no exploration results are being reported.

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 to avoid misleading reporting of Exploration Results.	Not applicable as no exploration results are being reported.
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.	Not applicable as no exploration results are being reported.

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	DD infill drilling of existing inferred resources is continuing at RAS on 60*40m metre spacing and deeper sub-vertical stuctures. A review of field mapping, soil sampling and geophysical surveys is in progress to determine new targets for drilling in the project area. Concurrent to the planned drilling outlined above, additional metallurgical test work, environmental, geotechnical and hydrological investigations are on-going to allow scoping and pre-feasibility studies into a gold mining and processing operation.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *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.* • *Data validation procedures used.*	Collar location surveys, downhole surveys and assay data are imported into the database from digital files provided by external providers. Geological logging, sample information and QAQC sample insertion data are entered directly using picklists into spreadsheets on mobile devices in the field. All source data is archived for later audits. All data is validated on import into the database with checks made for interval overlaps, gaps, duplicate holes, duplicate samples and out of range values. The database structure uses key fields to ensure there are no duplicate drillholes or samples.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Mr Allwood visited the site in January 2021, in December 2022, and three times in 2023, inspecting RC and DD drilling, logging, sampling, QC insertion practices and site geology. No major issues were identified. Some minor recommendations were made and these have since been implemented.

Criteria	JORC Code explanation	Commentary
	• *If no site visits have been undertaken indicate why this is the case.*	
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	There is good confidence in the large scale interpretation of the geology. The TGF is easily recognized in core and has a simple tabular geometry. Structural measurements of vein and fault orientations from oriented core allow good confidence in the geometry of mineralisation controlling faults. The drill spacing makes recognizing small scale (<10 m) variations in geometry, especially the internal grade geometries within the estimation domains difficult. The gold grade domains were created using Leapfrog software (v 2023.1.0) which created a 50% probability iso-surface wireframe using a radial basis function (rbf) interpolation of an 0.2 g/t Au indicator of 2 m composites. The rbf used a 'structural trend' comprising an an-isotropy of 3:3:1 oriented parallel to the manually interpreted TGF and parallel to a manually interpreted very steeply east dipping, north striking zone identified in the west of the deposit. The TGF footwall and steep zone were manually interpreted from logged lithology and oriented structural data (specifically quartz veins). The gold domains were also restricted to below the footwall of the TGF. Some below indicator grade samples are included within the gold grade domains and some above indicator grade samples are excluded from the gold grade domains because the rbf estimates the probability of points in space being above or below the indicator grade. Manual grade orientation domains were used to split the Leapfrog gold grade wireframe into an east dipping (roughly parallel to the TGF) domain and a steeply dipping domain. 94.5% of the samples are within the east dipping domain. The TGF and quartz vein orientations were used to guide the domain interpretations and to inform the orientation of likely variogram model axes. While individual high grade samples occur throughout the deposit, the best gold grades generally occur immediately below the TGF in the east dipping domain. Further below the TGF gold grades are generally best in the core of the domain and weaken towards the margins. While the geometry of the main zone immediately below the TGF is well defined, alternative interpretations of the gold mineralization geometry deeper (more than about 20 m) below the TGF and in the steep domain are possible. The resource categorization reflects this with

Criteria	JORC Code explanation	Commentary
		areas where alternative interpretations are likely classified as inferred, regardless of grade estimation quality measures. Oxidation domains were interpreted from logged oxidation.
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.*	The east dipping domain has been defined by drilling 1,850m down plunge (-25° towards 025°) and is 300 m to 380 m wide. In plan this equates to approximately 1,750 m NNE and 300 m to 380 m ESE. Mineralisation extends vertically in multiple zones over about 180 m. The thickest zone is continuously mineralized over 50 m vertically below the TGF. Other zones range in thickness from 20 m to 2 m.
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	This MRE was made by interpolating gold assays composited to 2.0m by ordinary kriging into a sub-blocked model using Minesight v 16.1.0 software. Geostatistical analysis was carried out using Leapfrog Edge v 2023.1.0 software. Outlier composite grades were determined from log histograms and cumulative probability plots were applied to the composites by domain, being 40 g/t Au in the east dipping domain and 20 g/t Au in the steep domain. Parent blocks were 25 m (E) by 25 m (N) by 5 m (vertical), sub-blocked to 6.25 m by 6.25 m by 0.5 m. Domain boundaries were hard boundaries. Blocks were interpolated using a minimum of 4 and a maximum of 15 composites from within a 150 m by 150 m by 30 m ellipsoid oriented parallel to the variogram model. A maximum of 7 composites were used per quadrant from a minimum of two quadrants. The same variogram model was used in both domains, but re-oriented parallel to the domain orientation in the steep domain. The variogram model was determined from experimental normal variograms of the composite data in the east dipping domain, excluding the outlier samples. The variogram model was a spherical model with a relative nugget effect of 52% and two sills. The major axis was parallel to the intersection of the steep zone and the main shoot (19/357), the semi-major axis 06/093 perpendicular to the major axis and within the plane of the TGF and the minor axis 65/220 perpendicular to the other two axes. The total ranges were 125 m for the major axis, 55 m for the semi-major axis and 35 m in the minor axis direction. The orientation and ranges of the variogram model did not change much from the previous MRE, suggesting that the variogram model is robust. Check estimates were completed on the MRE by varying the top cut as follows: top cut at the outlier grade limits; outlier restriction at 12.5 m instead of 25 m; and no top cut.

Criteria	JORC Code explanation	Commentary
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	In addition, volume – variance analysis using an affine correction was completed to assess which variants best represented the theoretical grade – tonnage curve. Previous estimates of the gold MRE at RAS have been made in 2019, 2021, July 2022 and February 2023. This MRE is lower grade than the 2023 MRE. This is a result of the newly available data being lower grade that the data used in 2023. This MRE uses 7637 samples compared to 2199 samples used in the 2023 MRE, however the average grade of the samples has fallen from 3.15 g/t in 2023 to 2.34 g/t in this MRE. It appears that the 2023 data was inadvertently biased towards high grade zones. There has been no production from RAS to allow reconciliation of the model. No by-products are assumed. pXRF Arsenic grades have been estimated in the block model. The block model parent blocks are approximately 25% of the typical drill spacing. The parent block size was selected as a compromise between honouring the domain geometry / volume and minimizing block grade estimation error. Open pit mining is assumed with a likely smallest mining unit (SMU) of about 5m by 5m by 5m. Underground mining is l also possible, albeit at a higher cut-off grade (around 1.5 g/t Au). No assumption is made of correlation between variables. The MRE is geologically controlled by the use of domains interpreted with reference to the geological model. Top cuts were applied to the composites prior to grade interpolation as described above. The block model was validated against drilling grades visually in section and in plan, by the use of swath plots and by comparison of the block model volumes to domain wireframe volumes. No reconciliation data is available as mining has not commenced.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis. Assays are reported as weight proportion of oven (110°C) dried samples. Bulk densities were determined from air dried core by immersion.

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Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The reporting cut-off (0.5 g/t) is based on metallurgical recovery indicated by gravity / CIL test work, processing, mining and G & A costs from comparable projects and revenue from a gold price of USD$1,830/oz escalated by 30% to allow for the reasonable prospects test.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if 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.*	Open pit mining followed by underground mining is also possible, albeit at a higher cut-off grade (around 1.5 g/t Au) is the assumed mining method. No allowance has been made for mining dilution or mining recovery except that domains were interpreted with a minimum width of 2 m.
Metallurgical factors or assumptions	• *The basis for assumptions or 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. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Metallurgical test work investigating a gravity – CIL process has resulted in recoveries combined recovery of 90%. Further work is underway to determine full processing parameters and economics.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable*	It is assumed that all permits necessary for commercial gold production will be obtained. Baseline studies are well advanced including:

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	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.	• surface water flow and quality • aquatic ecology • ecology including geckos, skinks, bats, birds, pests and flora • geochemistry • hydrology • socio-economic Other studies will commence as mine studies advance including noise, traffic, lighting and visual.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk density was interpolated by inverse distance squared weighting into the fresh and partial oxidation domains from 1,700 bulk density measurements. There was insufficient data in the oxide domain to allow interpolation. Bulk density was assigned to un-interpolated blocks by oxidation domain based on the median values of the bulk density samples in each oxidation domain. No difference was found in the median value of bulk density data between mineralised and un-mineralised samples. Bulk density was measured by core immersion. The core was not routinely coated, allowing water to penetrate voids, however the rocks have very low porosity due to metamorphism. 100 samples of fresh (unweathered) core were tested by the routine method and by wax coating to check for the effect of the water ingress on the bulk density measurements. There was no difference in the average value or the CV of the two methods. Therefore, MGL continues to use un-coated core for density determinations.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative*	Input data quality, confidence in the geological interpretations and the kriging slope of regression (a function of grade continuity and data (drilling) configuration) were all considered when classifying the model. In general, indicated resources are reported from continuous zones of un-ambiguous geological interpretation and in block grades where the

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	confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	nearest composite was less than 25 m away, the average composite distance was less than 40 m and kriging slope of regression was greater than 0.6. Resource categorization is based on confidence in the estimation of gold grades only. The resource classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates*	An earlier iteration of this MRE was reviewed by AMC Consultants who concluded that the MRE is an adequate representation of average grade and grade trends but with a degree of local variability not able to be accurately represented in the model.
Discussion of relative accuracy/ confidence	• *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.* • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The relative accuracy and confidence in the MRE is reflected in the resource classification. No quantitative assessment of errors has been made. The RAS MRE is a global estimate intended to give the best global grade – tonnage relationship, suitable for use in long term planning but not for local (block scale) estimates. No production data are available for reconciliation as mining has not commenced.