



24 January 2024

# Thick high-grade gold intercepts close out Resource Infill drilling at RAS ahead of a revised Mineral Resource Estimate.

## Rise and Shine (RAS) deposit (within the 100% owned Bendigo-Ophir Project)

Santana Minerals Limited (ASX: SMI) ("Santana" or "the Company") is pleased to advise that it has now received results from the last 14 holes of the resource infill drilling program at RAS which now enables it to complete the awaited Mineral Resource Estimate for the deposit.

The results reveal more of the same with strong high-grade intercepts within a demonstrable high-grade core measuring approximately, and typically 150m-175m wide, 25m-40m thick and, so far, traced over 1.5 km down plunge.

The final batch of assays from infill drilling of the previously defined Inferred JORC resource at RAS continues to deliver strong outcomes leading into an upcoming MRE update and impending mining study. These results are the last to be included in the upcoming Mineral Resource Estimate update.

The infill drilling is part of a program that has increased density to approximately 40m east-west spacing on 30m north-south sections over the upper 1km of plunge of the defined ore system. This spacing is at a density to generally allow Indicated resources to be estimated in the upper section of the deposit that will be targeted for open pit mining studies.

Highlighted below are exceptional results (in excess of 50-gram x metres). These holes lie within a 50-gram x metre projection of all holes within the RAS deposit as shown in Figure 1.

- MDD264
   28.2m @ 4.3g/t Au from 278.8m (true width estimate of 23.8m)
- MDD272
   14m @ 4.7g/t Au from 253m (true width estimate of 12.8m)



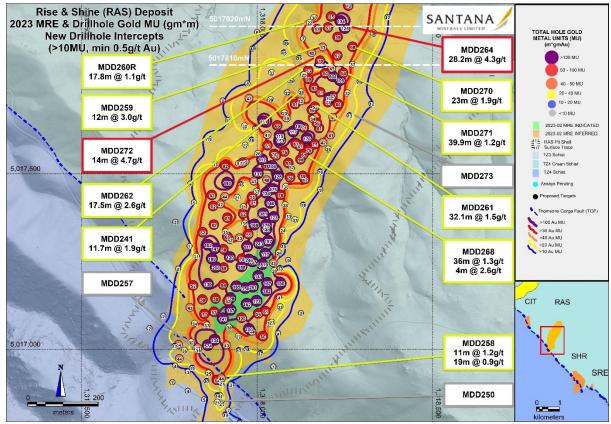


Fig 1: Latest results from infill drilling of the high-grade core at RAS showing the consistent thickness and gold grade.

As the ore body has taken shape with the infill drilling, the higher-grade fades into a series of stacked lower-grade bodies on its easterly and westerly limits.

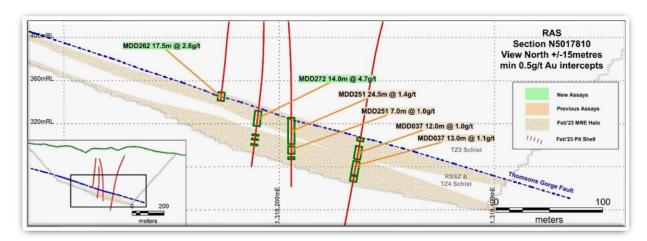
The results from within these zones have lower total metal units as also illustrated on Figure 1 by the 10-40 total metal units (gram x metre) contours.

Better intercepts from the edges include:

٠	MDD241	٠	11.7m @ 1.9g/t Au from 237.3m (true width estimate of 10.3m)
•	MDD258	٠	19m @ 0.9g/t Au from 46m (true width estimate of 16.3m)
•	MDD259	٠	12m @ 3.0g/t Au from 263m (true width estimate of 11.1m)
٠	MDD260R	٠	17.8m @ 1.1g/t Au from 274.2m (true width estimate of 15.8m)
٠	MDD261	٠	32.1m @ 1.5g/t Au from 264.9m (true width estimate of 30.7m)
٠	MDD262	•	17.5m @ 2.6g/t Au from 238.6m (true width estimate of 16.7m)
•	MDD268	į	36m @ 1.3g/t Au from 263m (true width estimate of 33.7m) and 4m @ 2.6g/t Au from 308m (true width estimate of 3.7m)
•	MDD270	į	23m @ 1.9g/t Au from 285m (true width estimate of 21m) and 20m @ 0.7g/t Au from 313m (true width estimate of 18.3m)
٠	MDD271	:	39.9m @ 1.2g/t Au from 276.1m (true width estimate of 34.5m) and 8m @ 0.5g/t Au from 322m (true width estimate of 6.9m)



The section through 5017900N illustrated below in Figure 2 shows the typical impact 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.



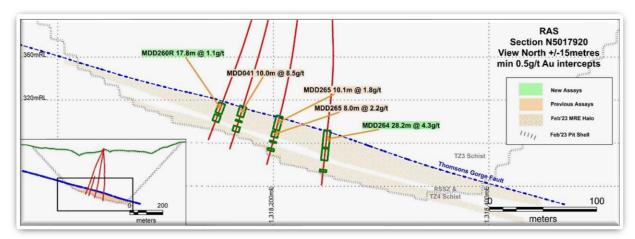


Figure 2 Cross Sections 5017810mN and 5017920mN, showing close up of new results with intercepts continuing to confirm the high-grade core in the northern part of RAS.

Three fringe holes that were designed to close out the high-grade core have also been drilled. These too continue to deliver consistent results, albeit not carrying the density of metal of the high-grade core. They sit mainly on the east-west edges as stacked lodes proximal to the core zone. (See Figure 1). Significant results from two of these diamond holes include:

- MDD257
   3m @ 1.9g/t Au from 13m (true width estimate of 2.5m) and
  - 3m @ 1.7g/t Au from 21m (true width estimate of 2.5m) and
  - 3m @ 0.7 g/t Au from 119m (true width estimate of 2.5m)
- MDD273
   8m @ 0.8g/t Au from 290m (true width estimate of 7.5m)

#### **Ongoing drilling**

Drilling at RAS is continuing at a reduced basis, however, following the receipt of this batch of samples, Santana has elected to draw the line at this time and finalise its revised Minerals Resource Estimate for RAS.



#### Technical studies begin to take shape

The modelling for the updated Mineral Resource Estimate (MRE) on RAS is advancing well for all four deposits. It is expected that the revised MRE will be successful in upgrading a sizeable amount of Inferred Resources category to the Indicated Resources category enabling open pit optimisation studies to commence with efficacy for future mine and development consideration.

Final preparations are underway to commence drilling for geotechnical analysis at RAS for a potential open pit mine. This will involve over 1,000m over four diamond drill holes from surface to below the mineralisation. The core logging, laboratory testing and analysis of results from this program is expected to take several months and is a key step in advancing the understanding of the project's geotechnical requirements.

Full metallurgical test-work, including comminution works of a representative master composite sample from RAS have commenced and will be followed by variability testing of ten composite samples across RAS.

Environmental baseline studies are continuing, with particular focus on lizard, invertebrate and pest surveys.

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 cutoff grade of 0.5 g/t Au with top cuts applied, as at February 2023:

Deposit	Category	tonnes (Mt)	Au grade (g/t)	Contained
				Gold (koz)
RAS <sup>1</sup>	Inferred	31.5	2.4	2,383
KAS.	Indicated	2.0	4.3	279
RAS Total	Indicated and Inferred	33.5	2.5	2,662
CIT <sup>2</sup>	Inferred	1.2	1.5	59
SHR <sup>2</sup>	Inferred	4.7	1.1	174
SRE <sup>2</sup>	Inferred	0.3	1.3	11
RSSZ	Inferred	37.7	2.2	2,628
Total	Indicated	2.0	4.3	279
RSSZ	Indicated and	39.7	2.3	2 000
Total	Inferred	33.7	2.3	2,909

#### Notes:

- 1. The Feb 2023 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". Refer to ASX announcement on 2 February 2023 for further detail.
- 2. 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) continue to apply and have not materially changed. Refer to ASX announcement on 28 September 2021 for further detail.

#### 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 "RAS Resource Upgrade 1 Million Ounces added at Higher Gold Grades" dated 2 February 2023
- 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

A copy of such announcement is available to view on the Santana Minerals Limited website <a href="www.santanaminerals.com">www.santanaminerals.com</a>. 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 Competent Person'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.

#### 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 - New Drill holes - New Mineralised Intercepts (top-cut to 100 g/t and at a 0.5 g/t lower cut-off grade)

Deposit	Drillhole	From	Drill Intercept	Estimated	Average Gold	Metal Units
		(m)	(m)	True Width (m)	Grade (g/t) (min 0.5g/t Au)	(metre x gram/tonne)
		237.3	11.7	10.3	1.9	22.2
	MDD241	258	1	0.9	0.6	0.6
		271	1	0.9	0.8	0.8
		4	1	0.6	0.6	0.6
		9	1	0.6	0.6	0.6
		52	1	0.6	1.7	1.7
	MDD250	57	1	0.6	2.4	2.4
		95	5	2.7	0.7	3.5
		103	1	0.5	1	1.0
		109	1	0.5	1.6	1.6
		13	3	2.5	1.9	5.7
		21	3	2.5	1.7	5.1
		31	1	0.8	3.5	3.5
		54	1	0.8	0.8	0.8
	MDD057	74	1	0.8	0.8	0.8
	MDD257	97	1	0.8	2.5	2.5
		107	1	0.8	0.6	0.6
		119	3	2.5	0.7	2.1
RAS		150	1	0.8	0.7	0.7
		172	1	0.8	0.6	0.6
	MDD258	16	1	0.9	0.6	0.6
		20	1	0.9	0.8	0.8
		26	1	0.9	3.4	3.4
		46	19	16.6	0.9	16.3
		95	1	0.9	2	2
		99	1	0.9	2.4	2.4
		136	4	3.5	2.9	11.6
		263	12	11.1	3	36
	MDD259	283	2	1.8	1.5	3
		289	1	0.9	0.5	0.5
	MDD260R	274.2	17.8	15.8	1.1	20.4
	MDD261	264.9	32.1	30.7	1.5	48.2
		311	1	1	0.7	0.7
	MDD262	238.55	17.45	16.7	2.6	45.4
		269	1	1	7.5	7.5
	MDD264	278.8	28.2	23.8	4.3	121.3
	IIIDDZ04	316	2	1.7	1.1	2.2



Deposit	Drillhole	From (m)	Drill Intercept (m)	Estimated True Width (m)	Average Gold Grade (g/t) (min 0.5g/t Au)	Metal Units (metre x gram/tonne)
	MDD268	263	36	33.7	1.3	46.8
	WIDD266	308	4	3.7	2.6	10.4
	MDD270	285	23	21	1.9	43.7
	WIDDZTO	313	20	18.3	0.7	13.4
	MDD271	276.1	39.9	34.5	1.2	47.9
		322	8	6.9	0.5	3.7
RAS	MDD272	253	14	12.8	4.7	65.8
		275	1	0.9	0.5	0.5
		279	1	0.9	0.6	0.6
		284	1	0.9	0.5	0.5
		279	1	0.9	0.6	0.6
	MDD273	290	8	7.5	0.8	6.4
		304	1	0.9	0.7	0.7



# Appendix 2 - New Drillholes Reported (in bold)

Deposit	Hole No	East NZTM	North NZTM	RL	Azimuth (T Avg)	Dip (Avg)	Length	Method	Status	Results
RAS	MDD240	1317958	5017533	670	57	-78	300	OHD	Completed	Reported
RAS	MDD241	1318071	5017717	598	71	-76	280	OHD	Completed	Reported
RAS	MDD242	1318090	5017512	655	123	-78	280	OHD	Completed	Reported
RAS	MDD243	1318191	5017667	646	243	-72	308	OHD	Completed	Reported
RAS	MDD244	1318013	5017267	733	252	-78	265	OHD	Completed	Reported
RAS	MDD245	1318240	5017772	610	269	-70	325	OHD	Completed	Reported
RAS	MDD246	1318030	5017775	607	127	-73	270	OHD	Completed	Reported
RAS	MDD247	1318250	5017663	636	255	-72	336	OHD	Completed	Reported
RAS	MDD248	1318198	5017605	664	181	-83	349	OHD	Completed	Reported
RAS	MDD249	1318287	5017727	606	288	-68	10	OHD	Re-Drilled	No assays
RAS	MDD249R	1318288	5017727	607	263	-75	330	OHD	Completed	Reported
RAS	MDD250	1317935	5016808	710	310	-48	160	DD	Completed	Reported
RAS	MDD251	1318167	5017835	581	138	-78	329	OHD	Completed	Reported
RAS	MDD252	1318241	5017773	610	235	-75	324	OHD	Completed	Reported
RAS	MDD253	1317933	5016808	710	285	-50	157	OHD	Completed	Reported
RAS	MDD254	1318167	5017835	581	86	-77	330	OHD	Completed	Reported
RAS	MDD255	1318252	5017905	570	291	-69	323	OHD	Completed	Reported
RAS	MDD256	1318099	5017634	640	223	-78	270	OHD	Completed	Reported
RAS	MDD257	1317817	5017012	704	134	-49	175	OHD	Completed	Reported
RAS	MDD258	1317876	5016944	703	141	-50	143	DD	Completed	Reported
RAS	MDD259	1318167	5017835	581	107	-83	333	OHD	Completed	Reported
RAS	MDD260	1318252	5017905	570	294	-61	57	OHD	Re-Drilled	No assays
RAS	MDD260R	1318252	5017905	570	283	-67	310	OHD	Completed	Reported
RAS	MDD261	1318199	5017709	633	248	-80	333	OHD	Completed	Reported
RAS	MDD262	1318167	5017835	581	211	-77	307	OHD	Completed	Reported
RAS	MDD263	1318290	5017654	631	238	-69	320	OHD	Completed	Reported
RAS	MDD264	1318252	5017905	570	179	-85	330	OHD	Completed	Reported
RAS	MDD265	1318254	5017905	570	278	-78	316	OHD	Completed	Reported
RAS	MDD266	1318167	5017835	581	260	-77	270	OHD	Completed	Reported
RAS	MDD267	1318252	5017905	570	313	-77	337	OHD	Completed	Reported
RAS	MDD268	1318228	5017563	669	262	-69	315	OHD	Completed	Reported
RAS	MDD269	1318167	5017841	582	319	-77	288	OHD	Completed	Reported
RAS	MDD270	1318253	5017906	570	140	-73	340	OHD	Completed	Reported
RAS	MDD271	1318292	5017783	592	293	-73	330	OHD	Completed	Reported
RAS	MDD272	1318166	5017838	582	127	-74	305	OHD	Completed	Reported
RAS	MDD273	1318312	5017682	619	309	-75	332	OHD	Completed	Reported



## 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.	Diamond drill (DD) core samples for laboratory assay are typically 1 metre samples of diamond saw cut ½ diameter core. 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 yielding a 30% sub-sample.
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.	the appropriate calibration of any measurement tools or systems used.  Aspects of the determination of mineralisation that are Material to the Public Report.	Samples are crushed at the receiving laboratory to minus 2mm (85% passing) and split to provide 1kg for pulverising to -75um. Pulps are fire
		assayed (FAA) using a 50g charge with AAS finish.  Certified standards, blanks and field replicates are inserted with the original batches at a frequency of ~4% for QAQC purposes.
	All pulps and crush reject (CREJ) are returned from the laboratory for further ~4% QAQC checks 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.	
	warrant disclosure of detailed information.	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).



JORC Code explanation	Commentary
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).
	RC drilling 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.
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.  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
	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).  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



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	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).
	costean, channel, etc) photography.  The total length and percentage of the relevant intersections logged.	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.
		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.



# 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.

QAQC procedures include field replicates, standards, and blanks at a frequency of  $\sim\!5\%$  and also cross-lab assay checks at an umpire laboratory.



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.	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 are used from time to time and follow the same processes.
	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.	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.
		For laboratory QAQC, samples (3*certified standards, blanks and field replicates) are inserted into laboratory batches at a frequency of ~4% and ~5% respectively. Once 1,000 samples have been assayed a ~5% selection of retained lab pulps across a range of grades are sent for reassay and to an umpire laboratory for cross-lab check assays.



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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 reassay 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.  The AcQuire database is stored on a cloud server and is regularly backed up, updated and verified by an independent qualified person.  There have been no adjustments to analytical data presented.



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.	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.
	Quality and adequacy of topographic control.	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.
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.	Drillhole collar spacing is variable and considered appropriate for determination of geological and grade continuity during this phase of the drilling programme. 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.  No compositing of samples is being undertaken for analysis. 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.	The majority of drillholes in this campaign are inclined -60° or -75° to an azimuth between 180°T and 270°T to intercept mineralisation at a reasonable angle and facilitate core orientation measurements. However, due to topographical constraints and the nature of infill drilling where intercepts are being targeted with some accuracy, some drillholes will be drilled at other azimuths and inclinations as noted. 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.  Most RC holes were drilled either vertically or at -60° towards 228°.



Criteria	JORC Code explanation	Commentary
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.
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.
		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.



# **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>	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.  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
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	are also subject to pre-payment of up to \$3M upon commencement of mining operations.  Early exploration in the late 1800's and early 1900's included small pits, adits and cross-cuts and alluvial mining.
parues		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



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	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.



Criteria	JORC Code explanation	Commentary
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 metavolcanic rocks. Gold mineralisation is concentrated in multiple deposits along the RSSZ. In the Project area there are 4 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 microshears, 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 is in a unit termed the "Hanging Wall Shear" (HWS) which lies immediately below the 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. 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.
Drill hole 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 drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Refer to the body of text.  No material information has been excluded.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Significant gold intercepts are reported using 0.25g/t Au and 0.50g/t Au lower grade cut-offs with a maximum of 4m of internal dilution included. Broad zonation is:  0.10g/t Au cut-off defines the wider low-grade halo of mineralisation, 0.25g/t Au cut-off represents possible economic mineralisation, with 0.50g/t Au defining high-grade axes / envelopes. 1.50g/t Au cut-off is possible economically underground exploitable Metal unit (MU) distribution, where shown on maps and in tables are calculated from total drill hole Au * associated drill hole interval metres. pXRF analytical results reported for laboratory pulp returns are considered accurate for the suite of elements analysed.
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 drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	All intercepts quoted are downhole widths. True widths are estimated perpendicular to mineralisation boundaries where these limits are known. Intercepts are associated with a major 20-120m thick low-angle mineralised shear that is largely perpendicular to the drillhole traces. Aggregate widths of mineralisation reported up until 2 <sup>nd</sup> June 2023 are drillhole intervals >0.50g/t Au occurring in apparent low angle stacked zones. Subsequent reporting is on a continuous basis. There are steeply dipping narrow (1-5m) structures deeper in the footwall and the appropriateness of the current drillhole orientation will become evident and modified as additional drill results dictate.
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 planview of drill hole collar locations and appropriate sectional views.</li> </ul>	Refer to figures in the body of the text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All significant intercepts have been reported.



Criteria	JORC Code explanation	Commentary
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; meaningful and material results are reported in the body of the text.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	DD infill drilling of existing inferred resources is continuing at RAS on 60*40m metre spacing.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	A review of field mapping, soil sampling and geophysical surveys is in progress before further drilling is planned at CIT, SHR and SRE deposits or target definition drilling elsewhere in the project area.
		A 2021 MRE update (to JORC Code 2012) completed in September 2021 increased Inferred Resources 155% to 643Koz from the 252Koz 2019 MRE (uncut & 0.25g/t lower cut-off).
		A 2022 MRE upgrade of RAS was completed in early July 2022 which increased the Global Inferred resources 3-fold to 2.1Moz (top-cut & 0.25g/t lower cut-off).
		A 2023 MRE upgrade of RAS was completed in early February 2023 which increased the total resources to 2.9Moz (top-cut & 0.5g/t lower cut-off) including the maiden report of Indicated Resources at RAS of 0.3Moz as well as increasing Inferred Resources at RAS to 2.4Moz for total RAS resources of 2.7Moz.
		Potential extensions to mineralisation and resources currently being drill tested are shown in figures in the body of the text.