

26th June 2025

Improved Metallurgical Outcomes from RAS and SRX

Santana Minerals Limited (ASX: SMI) (“Santana” or “the Company”) is pleased to report on another phase of metallurgical test work. Specific whole ore leach tests were completed on 6 composites of deemed low grade ore from RAS. Also, an additional 9 optimum leach tests were completed on the Srex gold deposits.

HIGHLIGHTS

1. Specific metallurgical test-work on RAS mineralisation deemed low-grade (avg. of 0.665g/t from 6 samples) returned high recoveries (avg of 88.7%), with low reagent consumption of 0.3kg/t of NaCN and 0.19kg/t of lime.

An analysis of all previous RAS metallurgical data was statistically analysed. Regression analysis generated a good correlation $R^2 = 0.871$. A mathematical formula to estimate residue grades when related to variable head grades was determined and enables variable percentage recovery estimate dependent on head grade:

$$\text{Au Residue (ppm)} = 0.0411 \times \text{Total Gold (ppm)} + 0.0671$$

2. Nine (9) representative composite samples from Srex (SRX) were subjected to suboptimum leach test work. The samples had an calculated head grade of 1.195g/t and returned significantly improved outcomes from the small number of previous tests. Metallurgical recoveries averaged 81.8% with low reagent consumption (0.40kg/t NaCN) and negligible lime consumption. Gravity gold recovery averaged 38.8%.

Santana’s CEO, Damian Spring said:

“These are fantastic outcomes for our pending project development. High recoveries, low chemical consumption, fast leaching and moderate power requirements from our RAS and Srex ores provide great optionality for ore blending from satellite deposits with RAS and an extended operating life.”

RAS Orebody – Low Grade Ore Metallurgical Testing

Further to statistical analysis of residue grades and the relationship between head grade and residue a decision was made to assess metallurgical properties of what would be deemed low grade material planned to be stockpiled separately on a free-on surface basis during mining.

Eight indicative samples were collected from the LG1 and LG2 domains within the proposed RAS open pit. The assay results ranged from 0.09g/t Au to 0.58 g/t. Based on the low grades two of these were not subjected to test work as their assay grades were sub-0.15g/t Au with the remainder subjected to comminution and whole ore leaching at a 106 micron grind size with test work undertaken by ALS metallurgy Laboratory.

Comminution test work

Sample RAS LG#8 was subjected to Bond Rod Mill index testing and concluded a Bond RWi of 16.6kwh/t slightly lower than the higher-grade ores but discernible due to lower percentage of visual silicification with the mineralisation.

Leach/Grind test work

Leach tests were completed at a 106 micron (μm) grind size and slurry density of 45% solids in Perth tap water. An initial pH of 10 (maintained at 9.5-10), 500ppm of NaCN (maintained at 300ppm) with samples sparged with oxygen at each check point.

The Metallurgical test work was completed by ALS in Perth, Western Australia under the guidance of expert metallurgical engineers and plant builders, MACA Interquip Mintrex.

Low residues were achieved from all samples after 24 hours of leaching. The average calculated head grade of all 6 leached samples of low grade was 0.665g/t Au with an average residue of 0.075g/t Au providing for an estimated weighted average recovery from low grade ore samples of 88.7% or a mean of 82.9%. A strong correlation between ($R^2 = 0.829$) calculated head grade and the extent of extraction was determined.

In line with previous metallurgical testing of RAS, very low cyanide consumption and lime addition is required with cyanide at 0.30kg/t and lime at 0.19kg/t.

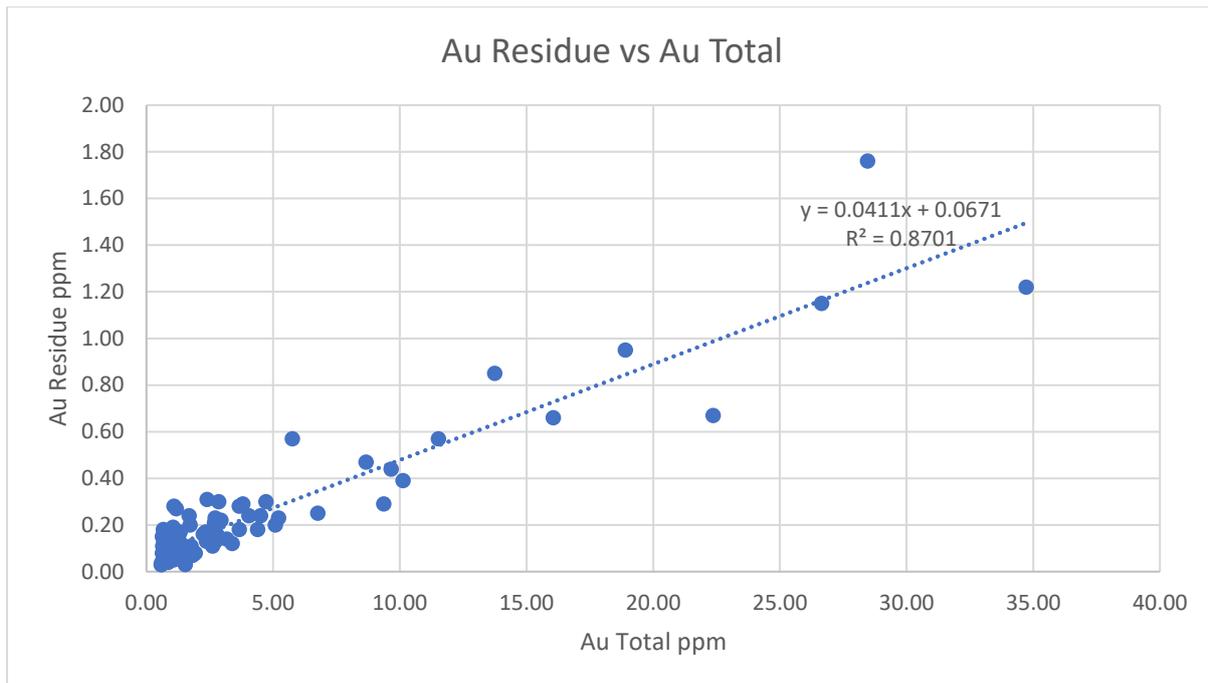
Refer to appendix 1 for summary table detail. ALS consents to the release of these results.

Statistical Analysis on the cumulative RAS Metallurgical dataset.

Santana has completed regression analysis on all met data received to date with a view to establishing a formula to apply to its planning based on variable monthly head grade in its gold production estimates. This regression concluded a reasonable fit ($R^2 = 0.871$) with only two outlier samples from the expanding dataset removed. from the

A gold recovery residue at varying head grade can be applied to estimate a recovery percentage:

$$\text{Au Residue (ppm)} = 0.0411 \times \text{Total Gold (ppm)} + 0.0671$$



For example at a head grade of 2.5g/t Au a recovery of 93.2% is estimated.

SREX Orebody – Metallurgical Testwork

Srex is a satellite deposit of smaller size and lower grade but serves as a significant supplementary ore source for the much larger RAS ore processing.

Comminution test work

The Srex ores appears notably softer and less resistant to both impact breakage and abrasion compared to RAS. Five composite samples underwent comminution testing.

- Average Crusher Work Index (CWI) of 5.25 kWh/tonne
- A Bond Ball Work index of 17.1 kWh/tonne (range 16.6 – 17.4 kWh/t) classifying the ore as hard.
- SAG Circuit Specific Energy averaging 8.45 kWh/tonne (range 7.72 to 9.16 kWh/t)

Leach/Grind test work

Leach tests were completed on 9 representative composite samples from Srex. Testing was completed by IMO laboratories at a 106 micron grind and a slurry density of 40% solids. An initial pH of 10 (maintained at 9.5-10), 500ppm of NaCN (maintained at 300ppm) with air used at a dissolved oxygen level of 8-10mg/l. All leach tests were conducted using Perth tap water.

- An optimal grind size of 106 micron (μm) was determined with leach recoveries ranging from 68.3% to 90.9%. Reagent consumption was low at 0.40kg/t of CN and negligible consumption of lime.
- Gravity recoverable gold averaged 37.2% gold (range 22.6% and 54.2%) at 300 micron (μm).

Refer to appendix 2 for summary table detail. Independent Metallurgical Operations Pty Ltd (IMO) consents to the release of these results.

Ends.

This announcement has been authorised for release by the Board.

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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 "Shiny outcomes from latest metallurgical test work at RAS" dated 2 April 2024
- ASX announcement titled "Infill drilling increases RAS Indicated category to 1.45Moz" dated 2 July 2024

A copy of such announcement is 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 Competent Person's findings are presented have not been materially modified from the original market announcements.

Appendix 1.

Table Leach Results for RAS Low Grade - current phase of metallurgical test work.

The results of this testing are summarised below.

RAS LG WHOLE ORE CIL RESULTS SUMMARY							
Composite ID	Test ID	Calc'd Feed Au (g/t)	Residue Grade (Au, g/t)	% Au Extraction @ hours		Consumption (kg/t)	
				2	24	Lime	NaCN
RAS LG #3	BF2836	0.18	0.06	28.4	66.8	0.20	0.32
RAS LG #4	BF2837	0.35	0.11	29.3	68.6	0.18	0.32
RAS LG #5	BF2838	0.97	0.09	52.1	90.7	0.19	0.30
RAS LG #6	BF2839	0.87	0.03	46.4	96.6	0.19	0.29
RAS LG #7	BF2840	0.44	0.08	47.1	81.6	0.18	0.29
RAS LG #8	BF2841	1.18	0.08	43.6	93.2	0.21	0.32

Comments on the above results are as follows:

- The 24-hour extraction ranged from 66.8% (RAS LG #3) to 96.6% (RAS LG #6). The average recovery achieved was 82.9%.
- It is noted that there is a strong correlation (0.8289 R²) between the calculated feed grade and the extent of extraction.
- Another item of note is the variance between the calculated leach feed grades against the assayed head grades. While some composites are close (RAS LG #4, #7), the variance on other composites indicates a non-uniform gold distribution across these samples.
- A narrow range of cyanide consumption is noted, between 0.29 kg/t (RAS LG #6 and #7) to 0.32 kg/t (RAS LG #3, #4 and #8).

Appendix 2.

Table of Optimum Leach Results for Srex - current phase of metallurgical test work.

Key findings for the SRX composites include:

- Head assay average gold grades range from 0.46 g/t to 1.74 g/t, while calculated grades (based on leach work) range from 0.76 g/t to 1.91 g/t.
- High head assay arsenic grades ranging from 2,260 to 7,611 ppm.
- Gravity gold recoveries range from 22.6% to 54.2%.
- Overall gold recoveries range from 68.3% to 90.9% with final leach residue grades ranging from 0.07 g/t to 0.48 g/t.
- The minor presence of pre-robbing was identified for the SRX Master Composite, resulting in the use of Carbon-In-Leach to remedy the issue.
- Ultrafine grind testing to 20 µm indicated over 20% of the gold is trapped at liberation sizes below 20 µm or exists as solid solution in sulphides.
- An increase in arsenic head grade corresponds with a reduced gold recovery (increased residue grade), suggesting the presence of gold locked within the crystal lattice of arsenopyrite. However, this is not the case for all composites, with some indicating gold is not locked within the arsenopyrite and instead associated with other minerals. This highlights the varying gold mineralogy and therefore refractory nature throughout the SRX deposit.

Composite		SRX-MC	SRX-VC1	SRX-VC2	SRX-VC3	SRX-VC4
Leach Test		LT-4	LT-VC1	LT-VC2	LT-VC3	LT-VC4
Calc'd Ore Head Grade	g/t	1.10	0.76	1.24	1.91	0.98
Assay Ore Head Grade	g/t	0.66	0.51	0.46	1.55	1.74
Gravity Gold Recovery	%	22.9%	36.7%	51.5%	44.6%	22.6%
Overall Gold Recovery	%	68.3%	90.9%	83.3%	75.0%	75.3%
Leach Residue Grade	g/t	0.35	0.07	0.21	0.48	0.24
Gravity Au Recovery	g/t	0.25	0.28	0.64	0.85	0.22
Leach Au Recovery	g/t	0.50	0.41	0.39	0.58	0.51
Overall Au Recovery	g/t	0.75	0.69	1.03	1.43	0.73

Composite		SRX-VC5	SRX-VC6	SRX-VC7	SRX-VC8
Leach Test		LT-VC5	LT-VC6	LT-VC7	LT-VC8
Calc'd Ore Head Grade	g/t	0.86	1.05	1.35	1.51
Assay Ore Head Grade	g/t	0.47	1.32	0.90	0.89
Gravity Gold Recovery	%	30.5%	35.5%	36.0%	54.2%
Overall Gold Recovery	%	86.7%	86.1%	86.4%	84.6%
Leach Residue Grade	g/t	0.11	0.15	0.18	0.23
Gravity Au Recovery	g/t	0.26	0.37	0.49	0.82
Leach Au Recovery	g/t	0.48	0.53	0.68	0.46
Overall Au Recovery	g/t	0.74	0.91	1.17	1.28