

# Metallurgy of Oxide Samples show +90% Gold Recovery

# Northern Zone - Kalgoorlie East Project

# 25km from Kalgoorlie

## **Highlights:**

- Metallurgical testwork by cyanide bottle roll has shown gold recoveries from two oxide samples of:
  - 93.67% and 90.64% (duplicate sample)
  - Average 92.16%
- Metallurgical testwork by cyanide bottle roll of three oxide samples in 2023 reported average gold recovery of 92.9%<sup>1</sup>
- The overall average gold recovery from the five samples is 92.56%
- All assay results are now returned, providing a clear direction for future drilling to connect the west and east mineralised zones
- The PoW for this drilling has been recently approved
- Mining Lease application continues through the process, with updates expected later this month
- An upcoming site visit is planned to review and discuss Xirlatem models on Northern Zone, as we move towards the maiden MRE

**David Lenigas, Chairman of RGL, said:** "Metallurgical testwork using cyanide bottle roll has closely replicated the original 2023 work previously reported when we were doing our due diligence on the Project. Gold recovery results between 90.64% and 94.7% for five samples, that average 92.56% gold recovery, is an excellent outcome and bodes well for our plans to scope out potential starter pits for toll treatment (like nearby oxide pit operations such as BlackCat Syndicate's Myhree mine). We now have all the results back from the recent RC and aircore drilling programs which illustrate the main oxide mineralisation has the potential to link the west and east mineralised zones. The structural and geological modelling being undertaken by Xirlatem will add to the solid basis for the maiden MRE and will inform future drilling. We will continue to update shareholders as we progress the Project."

**Riversgold Limited (ASX: RGL, Riversgold** or **the Company)** is pleased to announce further positive metallurgical results above 90% recovery, along with the final drilling results from recent drill programs. This work is aimed at progressing the Project towards a maiden Mineral Resource Estimate (**MRE**) at the Northern Zone Intrusive Hosted Gold Project, located 25 km east of Kalgoorlie in Western Australia (refer to **Figure 1** for location).

## Northern Zone Metallurgy Results:

As previously announced, three metallurgical samples were submitted to Nagrom in Perth in June 2022 in order to determine potential gold recoveries of Northern Zone oxide material from the previous reverse circulation (**RC**) drilling conducted by Oracle in October 2021. This was undertaken as part of Riversgold's initial due diligence on the Northern Zone Project. The results from the three samples showed recoveries of **91.8% and 92%**, with a maximum individual recovery of **94.7%** for an average recovery of **92.9%** after 24 hours. This was recognised as an excellent result.

<sup>&</sup>lt;sup>1</sup> RGL ASX announcement dated 9 May 2023: Farm-in to Significant Porphyry Hosted Gold Project



The most recent 24 hour cyanide bottle roll testing on core from RC drill hole NZRC008 (Figure 2) was undertaken by Jinnings in Perth and has shown recoveries on a single composite and duplicate sample of 93.67% and 90.64% respectively and averages 92.16%.

The overall average gold recoveries from both the 2023 and 2025 cyanide bottle roll tests is **92.56%** which bolsters confidence in excellent metallurgy for the Kalgoorlie East – Northern Zone Project.

## **Northern Zone Latest Drilling Results**

The final assay results have been received for 414 samples from the final 11 vertical aircore (**AC**) drill holes (**Tables 1-3**) of the 32 hole 1,805m program (refer to **Figure 1** for Project location). The drill holes on the northwestern side of the tenement appeared to have closed off mineralisation, however, two drill holes NZAC144 and 145 have intersected shallow zones of mineralisation that will require follow up drilling. A selection of the best RC and AC drill results from drilling this year are listed below:

Significant shallow gold intercepts from this year's RC drill holes include:<sup>2</sup>

•	7m @ 3.62 g/t Au from 39m	(NZRC007)
•	5m @ 4.37 g/t Au from 37m	(NZRC008)
•	15m @ 0.75 g/t Au from 35m	(NZRC010)
•	6m @ 6.12 g/t Au from 35m	(NZRC012)
•	3m @ 8.20 g/t Au from 60m	(NZRC016)
•	14m @ 0.72 g/t Au from 41m	(NZRC017)
Signifi	cant gold intercepts received to date from this year's AC drilli	ng include: <sup>3</sup>
•	10m @ 8.89 g/t Au from 46m	(NZAC127)
•	7m @ 3.14 g/t Au from 47m	(NZAC124)
•	5m @ 1.26 g/t Au from 46m	(NZAC132)
•	12m @ 0.80 g/t Au from 32m	(NZAC118)

The AC and RC program results (**Figures 3-5**) continued to successfully intersect the mineralised host porphyry over an increasing footprint and consistently validate the broader gold mineralisation model. We will continue drilling to further our understanding of the Project as we proceed to a maiden Mineral Resource Estimate (**MRE**). The current structural analysis underway by Kalgoorlie-based specialist consulting firm, Xirlatem, will also assist with future targeting. The clear priority moving forwards is the connection of the western and eastern zones of mineralisation over an area which is basically undrilled. The 2025 drilling results to date have confirmed the strategy to rapidly increase the oxide potential.

#### Northern Zone Concept:

Possible ore processing scenarios have been demonstrated by the recent success of Black Cat Syndicate Ltd via their use of a turn-key funding, development and processing package at their Myhree/Boundary open pits, located 7km to the north of the Northern Zone Project.

Conceptually, the Company also draws parallels between Northern Zone and Saturn Metals' Apollo Hill Project, discerning similarities based on the PEA statement released by Saturn Metals (ASX: 17 August 2023), which suggests the potential for a sizeable low-grade heap leach operation. Saturn Metals Limited has released a Preliminary Economic Assessment (**PEA**) on the Apollo Hill Gold Project which is located 175km due north of Northern Zone. With a resource estimate of 118Mt at 0.53g/t gold, totalling 2.03Moz<sup>4</sup>, this development

<sup>&</sup>lt;sup>2</sup> RGL ASX announcements dated 19 March 2025: Gold results continue at Kalgoorlie East Project, 3 April 2025: Gold results continue to shine at

Kalgoorlie East Project, and 11 April 2025: Wide gold intercepts continue from Kalgoorlie East

<sup>&</sup>lt;sup>3</sup> RGL ASX announcement dated 23 April 2025: Gold results continue to expand Kalgoorlie East Project

<sup>&</sup>lt;sup>4</sup> STN ASX announcement dated 12 February 2025 "Apollo Hill Gold Resources Exceeds 2Moz"



serves as a benchmark for our aspirations at Northern Zone, albeit with the potential for Northern Zone to be an even larger project.



Figure 1: Northern Zone Project Map showing proximity to the Kalgoorlie "Super Pit".



Figure 2: Northern Zone Metallurgical information from oxide sample. Refer Figure 3 for location of drillhole relative to recent reported results.





Figure 3: Best 2025 RC and AC drill collar plan with gold grade contours from all drilling results to date.





Figure 4: AC drill collar plan and significant intercepts (White), with previously reported results (Grey), within gold grade contours from all drilling results to date. Last few remaining drill holes closed of mineralisation, and then NZAC144 and 145, have intersected a new mineralised zone.





Figure 5: Cross–section of 3D Leapfrog software model. The interpretation illustrates gold grade shells, derived from all the significant intercepts reported to the ASX to date. The model is constrained via a 25m buffer to all the RGL/Oracle drill hole traces that have been drilled at Northern Zone since 2021. Refer to Figure 2 and 3 drill collar plan for the location of the section line.

#### -ENDS-

This announcement has been authorised for release by the Board of Riversgold Ltd.

### For further information, please contact:

David Lenigas			Ed Mead		
Executive Chairman			tor		
P:	+44 (0) 7881825378	P:	0407 445351		
E:	dlenigas@riversgold.com.au	E:	<u>emead@riversgold.com.au</u>		

#### **Competent Person's Statement**

The information in this report that relates to exploration results is based on information compiled by Mr Edward Mead, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Mead is a director of Riversgold Ltd and a consultant to the Company through Doraleda Pty Ltd. Mr Mead has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Mead consents to the inclusion of this information in the form and context in which it appears in this report.



## **APPENDIX 1: Drilling Information**

Table 1: Northern Zone Significant Intercepts from AC drill holes

Hole ID	From (m)	To (m)	Width (m)	Au g/t	Intercept
NZAC135	42	44	2	0.64	2m @ 0.64 g/t Au from 42m , NZAC135
NZAC136	46	47	1	1.16	1m @ 1.16 g/t Au from 46m , NZAC136
NZAC139	33	36	3	0.58	3m @ 0.58 g/t Au from 33m , NZAC139
NZAC141	32	34	2	0.62	2m @ 0.62 g/t Au from 32m , NZAC141
NZAC144	30	36	6	0.82	6m @ 0.82 g/t Au from 30m , NZAC144
including	34	35	1	1.84	Including 1m @ 1.84 g/t Au from 34m
NZAC145	27	34	7	0.65	7m @ 0.65 g/t Au from 27m , NZAC145
including	32	33	1	1.98	Including 1m @ 1.98 g/t Au from 32m

## **Table 2: Northern Zone Drill Collar Locations**

Hole id	Туре	MGA_E	MGA_N	Elevation (m)	Total Depth (m)	Dip (°)	AZM_MGA	Date
NZAC135	AC	381647.6	6592651.0	356.6	59	0	-90	27/03/2025
NZAC136	AC	381659.9	6592663.4	356.65	60	0	-90	28/03/2025
NZAC137	AC	381672.2	6592675.7	356.66	60	0	-90	28/03/2025
NZAC138	AC	381684.6	6592688.0	356.7	64	0	-90	29/03/2025
NZAC139	AC	381563.2	6592662.1	356.88	49	0	-90	29/03/2025
NZAC140	AC	381575.0	6592673.5	356.9	57	0	-90	29/03/2025
NZAC141	AC	381587.2	6592686.1	356.92	47	0	-90	30/03/2025
NZAC142	AC	381599.5	6592698.4	356.95	48	0	-90	30/03/2025
NZAC143	AC	381612.0	6592710.9	356.97	49	0	-90	31/03/2025
NZAC144	AC	381624.2	6592723.4	357	49	0	-90	30/03/2025
NZAC145	AC	381636.6	6592735.6	356.85	47	0	-90	30/03/2025

## Table 3: Northern Zone assay results above 0.3 g/t Au from AC drill holes

	Depth	Depth		Au
Hole ID	From	То	Width	ppm
NZAC135	42	43	1	0.98
NZAC136	34	35	1	0.48
NZAC136	46	47	1	1.16
NZAC137	31	32	1	0.41
NZAC137	39	40	1	0.64
NZAC138	43	44	1	0.61
NZAC139	33	34	1	0.50
NZAC139	34	35	1	0.97
NZAC141	32	33	1	0.81
NZAC141	33	34	1	0.42
NZAC141	42	43	1	0.55

	Depth	Depth		Au
Hole ID	From	То	Width	ppm
NZAC144	30	31	1	1.23
NZAC144	32	33	1	0.75
NZAC144	33	34	1	0.63
NZAC144	34	35	1	1.84
NZAC144	35	36	1	0.41
NZAC145	27	28	1	0.32
NZAC145	28	29	1	0.86
NZAC145	29	30	1	0.43
NZAC145	32	33	1	1.98
NZAC145	33	34	1	0.68



#### Table 4: Northern Zone Drill Collar Location for NZRC008 – Metallurgy Test Work

Hole id	Туре	MGA_E	MGA_N	Elevation (m)	Total Depth (m)	Dip (°)	AZM_MGA	Date
NZRC008	RC	381560	65926644	356.82	121	-60	225	03/03/2025

See RGL ASX announcement dated 19 March 2025 for further details regarding NZRC008.

## **APPENDIX 2: JORC INFORMATION**

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results at Northern Zone.

## Section 1: Sampling Techniques and Data

(Criteria in this section applies to all succeeding sections)

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.	Metallurgy sample was selected from recent RC drilling reported to the ASX on 19 March 2025. Every Aircore metre drilled was placed on the ground. 6m composites were collected using a scoop method of sampling the coarse reject sample for the first 24m. 1m sampling using a rifle splitter was trialed on the clays, from 24m, with sampling deemed to create a high degree risk of smearing. The clays are not wet, but have a damp characteristic. A large metal scoop was used to sample between 70-90% of material from each metre drilled, to total between 2-3kg samples. Standard reference material, sample duplicates and blanks, were undertaken at 25m sample intervals. Samples were sent to the laboratory for crushing, splitting and analysis. Analysis was undertaken by Jinnings laboratories (Kalgoorlie) for gold assay by 50g fire assay.
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).	Metallurgy sample was from Reverse Circulation drilling. Australian Aircore Drilling completed the program using a blade to refusal.
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.	Drill recovery was routinely recorded via estimation of the comparative percentage of the volume of the sample bag by the company geologist. The sample recovery was deemed excellent for representative assays. The cyclone was cleaned or checked every 6m. To be noted, is that there is no active water table and all samples are dry, making estimates of recovery easier as samples remain the same size.
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 holes have been geologically logged for lithology, mineralisation and weathering. As well as whether dry, damp or wet. Logging is quantitative for presence of quartz veins. All other logging is qualitative. A brief description of each drilling sample was recorded and a permanent record has been collected and stored in chip trays for reference.
Sub-sampling techniques	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.	1m sampling using a rifle splitter was trialed on the clays, from 24m, with sampling deemed to create a high degree risk of smearing. The clays are not wet, but have a damp characteristic. A large metal scoop was used to



Criteria	JORC Code explanation	Commentary
and sample preparation	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.	sample between 70-90% of material from each metre drilled, to total between 2-3kg samples. Standard reference material, sample duplicates and blanks, were undertaken at 25m sample intervals. Samples were sent to the laboratory for crushing, splitting and analysis. The use of fire assay with 50g charge for all AC drilling provides a level of confidence in the assay database. The sampling and assaying are considered representative of the in-situ material. The sample size of 2-3 kilograms is appropriate and representative of the grain size and mineralisation style of the deposit.
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.	Jinnings (Kalgoorlie) were used for all analysis of drill samples submitted by Riversgold. The laboratory techniques below are for all samples submitted to Jinnings and are considered appropriate for the style of mineralisation defined within the Northern Zone Project area: Samples above 3Kg were riffle split. Pulverise to 95% passing 75 microns 50-gram Fire Assay (FA50A) – Au Duplicates, Standards and Blanks were used for external laboratory checks by RGL SCHEME LWL1000 A 1000g charge is leached for 24 hours using LeachWell Assay Tabs <sup>™</sup> under manufacturers specified leach conditions. The resultant liquor is analysed for gold to determine cyanide soluble gold content, using 50-gram Fire Assay (FA50A).
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.	Intercepts were reviewed by 2 company personnel.
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.	The collar position of each hole has been marked out with a Garmin Inreach Explorer+ hand held GPS, and will be picked up by Spectrum Surveys (Kalgoorlie) using a DGPS.
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.	The holes were drilled on a nominal Northeast- Southwest 20m spacing on traverses 15-20m apart.
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.	Based on logging of diamond core the drill holes appear to be orientated perpendicular to strike and dip of the main mineralised structures. An interpreted fault though the middle of the mineralisation may have caused some displacement.
Sample security	The measures taken to ensure sample security.	Company personnel delivered samples to Jinnings Kalgoorlie where they were submitted for assay.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Data reviews will be conducted on completion of further drilling

**P:**+61 (8) 6143 6747

E:info@riversgold.com.au



## Section 2: Reporting of Exploration Results

## (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Northern Zone Project is comprised of one granted prospecting licence (P25/2651) which covers an area of 82 hectares, and is held in the name of Oracle Gold (WA) Pty Ltd. RGL have farmed into the Tenement and have exceeded minimum spend of \$600,000 in exploration expenditure on the tenement within two years, to achieve 80% ownership. RGL has notified Oracle of meeting the farmin. The JV documents are to be formalised by December 2025. Oracle will be required to contribute pro-rata or dilute.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The majority of previous exploration in the area was by Northern Mining during 2007 to 2012 under the Blair North project, multiple small resource areas were identified at the George's Reward area to the south of P25/2651. Numerous gold intersections were recorded
Geology	Deposit type, geological setting and style of mineralisation.	The deposit sought is (Intrusion Related Gold System (IRGS) style of mineral deposit.
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth 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.	Refer to Tables and Figures within the body of the release.
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.	Intersections are weighted average grades based on a 0.001 g/t Au cut-off with unlimited waste zones but with a targeted grade of 0.4-0.6g/t Au.
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').	The diamond drilling program in 2023 confirmed the apparent widths of mineralisation as being perpendicular to foliation and veining. We believe the step out RC drilling to be the same as the diamond drilling. The true width of mineralisation is still to be fully ascertained.
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.	See body of the announcement for relevant diagrams and photos.
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.	The reporting of exploration results is considered balanced by the competent person.



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.	See body of the announcement.
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.	<ul> <li>Follow up phases of drilling to further test strike to be undertaken.</li> <li>Complete a maiden MRE</li> </ul>

A: Suite 23, 513 Hay Street, Subiaco WA 6008 P:+61 (8) 6143 6747 E:info@riversgold.com.au