

**ROX RESOURCES LIMITED**

ASX: RXL

*Rox Resources Limited is exploring and developing advanced gold assets in Western Australia: the Youanmi Gold Project and the Mt Fisher – Mt Eureka Gold/Nickel project.*

**DIRECTORS**

**Mr Stephen Dennis**  
*Chairman*

**Mr Robert Ryan**  
*Managing Director*

**Dr John Mair**  
*Non-Executive Director*

**Mr Matthew Hogan**  
*Non-Executive Director*

Shares on Issue	407.1m
Share Price	\$0.14
Market Cap.	\$57.0m

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## Youanmi metallurgical testwork delivers positive results to support impending Pre-Feasibility Study

**Testwork demonstrates that high gold recoveries can be achieved via multiple flowsheet options**

**Highlights:**

- Overall gold recoveries of up to 96% via Locked Cycle Flotation Testwork (91% staged recovery to concentrate) then float tails CIL (5% staged recovery).
- Flotation produces high concentrate grades of +50g/t gold with a low arsenic grade and mass pull, confirming that a concentrate sales pathway provides a low CAPEX, simplified flowsheet.
- BIOX<sup>®</sup> test-work delivers very high gold recoveries of 95.6% from concentrate, at low oxidation rates.
- Engineering works well advanced to provide CAPEX and OPEX estimates for three potential processing options (BIOX<sup>®</sup>, Albion<sup>®</sup> and Concentrate sales).
- Geo-metallurgical work currently underway to determine the varying mineralogy to refine the optimal flowsheet.
- Youanmi Pre-Feasibility Study (PFS) scheduled to be completed by end-July 2024.

West Australian gold exploration and development company Rox Resources Limited (“**Rox**” or “**the Company**”) (ASX: RXL) is pleased to report high gold recoveries from multiple flowsheets based on recent metallurgical test work programs on its 100%-owned Youanmi Gold Project in Western Australia.

The metallurgical test work program has focused on the fresh sulphide portion of the Mineral Resource, which is the focus of the Pre-Feasibility Study (PFS) currently nearing completion.



Rox Resources Managing Director, Robert Ryan, commented:

*“The results from the current metallurgical test program build on the swathes of previous metallurgical test work and historical processing data at Youanmi. The results highlight strong gold recoveries to a concentrate and exceptional recoveries from low oxidation rates in both BIOX® and Albion® technologies.*

*“Engineering works are well advanced with detailed estimates for OPEX and CAPEX due by the end of June, which will allow for PFS completion by the end of July.”*

## Flotation Testwork

Rox provided ALS Metallurgy (ALS) with a composite sample of 67.3kg of selected quartered NQ sized core from a recent drilling campaign in the Link Resource area. All selected core was representative of the PFS mine plan at Link. This composite sample complemented previous flotation testwork conducted on other areas in the mine plan, being Main and Pollard.

Locked Cycle Testwork (LCT) was conducted by ALS in Perth, under the supervision of JT Metallurgical Services (JT), who acted as the lead manager for all these testwork campaigns on behalf of Rox.

Locked Cycle Testwork aims to simulate the continual nature of the flotation circuits, providing a more accurate representation of how the circuit would perform at full scale compared to batch testwork. Float tests were conducted at a feed size of P<sub>80</sub> 75µm. Float and leach testwork was conducted in site raw water.

Two flowsheets were assessed as part of the PFS testwork, including:

**Flowsheet #1 – Rougher/Scavenger, Cleaner, Re-cleaner:** Flotation feed to rougher/scavenger, rougher/scavenger concentrate cleaned, with the cleaner tail returned to the flotation feed. Cleaner concentrate reports to the re-cleaner with the re-cleaner tail reporting to the cleaner feed. Re-cleaner concentrate reports to final concentrate; and

**Flowsheet #2 – Rougher/Scavenger, Cleaner, Re-cleaner with Concentrate Re grind:** Flotation feed to rougher/scavenger, rougher/scavenger concentrate cleaned, with the cleaner tail returned to the flotation feed. Cleaner concentrate is ground to P<sub>100</sub> 53µm prior to reporting to the re-cleaner. The re-cleaner tail reports to the cleaner feed. Re-cleaner concentrate reports to final concentrate.

A total of six cycles were completed on each of the flowsheets.

The results of LCT 1 and LCT 2 are shown in Table 1 below. This shows that the finer regrind of LCT 2 achieved a higher overall gold, sulphide and arsenic grade, and a lower overall mass pull compared to LC1 (11.6% to 13.5%).

**Table 1: Locked Cycle (Cycles 4-6) Results**

Test	Feed		Cycle 4-6 Concentrates									
	Au Assay Head	Sulphide Assay Head	Mass Pull	Float Con Size	Au		As		Fe		Sulphides	
	g/t	%	%	P <sub>80</sub> µm	g/t	% Rec	%	% Rec	%	% Rec	%	% Rec
LCT 1	8.5	6.1	13.5	85	56.5	91.5	2.34	91.6	38.9	68.2	39.9	98.7
LCT 2	(8.65/8.46*)		11.6	45	63.8	91.0	2.74	88.8	44.3	66.4	46.7	98.6

\*recalc feed grade for LCT1/LCT respectively

Cycle 6 rougher tails from both locked cycle tests were representatively sampled and subjected to a cyanidation leach, reflecting a flowsheet consisting of flotation followed by a CIL on the flotation tail, provided in Table 2 below.

**Table 2: Flotation Tail Leach and Overall Extraction to Concentrate and CIL**

Composite ID	Grind Size P <sub>80</sub>	Feed Grade (g/t)		Solid Tails Grade	Au Leach Extraction	Calc. Extraction to Conc. & CIL
		Fire Assay	Recalc.	g/t	%	%
LC1 Cycle 6 Rougher Tail	75 µm	0.875	0.82	0.36	55.96	96.27
LC2 Cycle 6 Rougher Tail	75 µm	0.86	0.87	0.32	54.42	95.70

Average lime and cyanide consumptions are considered low (0.83kg/t and 0.16kg/t).

The flotation tail leach achieved an average leach extraction of 55.19% at 48 hours. Factoring in the flotation concentrate, the sample achieved a total extraction (either leached or collected as a flotation concentrate) of 96.27% and 95.70% for LC1 and LC2 respectively.

The following is noted from the flotation concentrate assay results:

- Low arsenic concentrations. Concentrations are below the common smelter-imposed penalty threshold.
- Low total and organic carbon content;
- Both samples show low levels of common deleterious elements such as bismuth, tellurium, lead, cadmium and mercury – which is in line with historical results;
- Variable silicate concentrations between tests, significant reduction in silicate concentration in LC2 indicates that the regrind was effective in reducing non-sulphide gangue reporting to concentrate; and
- 3.00% silicate in LC2 is indicative of good froth drainage and low concentrations of non-sulphide gangue minerals such as clays and other hydrophobic minerals. This is indicative that additional cleaning stages are unlikely to significantly improve the concentrate grade, hence are not required.

## BIOX® Test work

Metso was engaged to assess the Youanmi ore using their proprietary BIOX® bacterial oxidation technology. Metso has previously tested samples from Youanmi in both 1990 and 1992.

Approximately 4.1kg (dry weight equivalent) of the 2022 ROM Composite Flotation Concentrate was sent over to SGS Johannesburg for BIOX® amenability test-work. This material was selected so that a direct comparison to previous Albion® test-work could be conducted. A total of seven BIOX® Batch Amenability Tests (BATs) were completed on the provided concentrate sample. The tests assessed the degree of sulphide oxidation across different bacterial oxidation incubation periods, namely:

- BAT 1 – 12 days
- BAT 2 – 15 days
- BAT 3 – 7 days
- BAT 4 – 16 days
- BAT 5 – 13 days
- BAT 6 – 9 days
- BAT 7 – 10 days

All BAT tests were inoculated with an identical quantity of Youanmi adapted culture. All other tests parameters including nutrient additions, initial and total acid additions and temperature were all kept constant across all tests.

The results of the tests are shown in Table 3 below:

**Table 3: BIOX® Oxidation Results**

BAT Test	Period (Days)	Sulphide Oxidation (%)	Arsenic Solubilisation (%)	Iron Solubilisation (%)
BAT 3	7	37.4	98.9	35.3
BAT 6	9	92.8	99.7	78.5
BAT 7	10	97.8	99.7	83.2
BAT 1	12	97.9	99.7	84.4
BAT 5	13	98.2	99.7	83.8
BAT 2	15	98.6	99.7	84.7
BAT 4	16	99.1	99.7	85.7

On completion, each BAT test was filtered and the residue washed to remove any residual acid and dried at 50°C. A representative sub-sample was taken for cyanidation test-work. A cyanidation test was also completed on an un-oxidised sample for comparison. Results of the cyanidation test-work are presented in Table 4 below:

**Table 4: BIOX® Test-work Cyanidation Results**

Sample	S <sup>2-</sup> Oxdn. (%)	Consumption		Gold				
		NaCN (kg/t Conc.)	Lime (kg/t Conc.)	Feed (g/t)	Tails (g/t)	Carbon (g/t)	Dissln. <sup>(1)</sup> (%)	Accntbly. (%)
FEED	-	10.4	2.0	26.85	10.98	189	<b>60.4</b>	97
BAT 1	98	5.2	2.7	29.40	1.04	316	<b>96.7</b>	92
BAT 2	99	5.9	2.5	29.90	0.82	332	<b>97.4</b>	95
BAT 3	37	6.2	2.1	28.20	1.28	346	<b>95.6</b>	106
BAT 4	99	5.3	2.3	29.95	0.76	370	<b>97.5</b>	105
BAT 5	98	5.3	2.8	29.40	0.98	322	<b>96.9</b>	94
BAT 6	93	6.0	3.6	28.80	1.18	306	<b>96.2</b>	91
BAT 7	98	6.1	3.2	29.20	1.14	320	<b>96.4</b>	91

The tests show that the bacterial oxidation of the sample was effective in increasing the cyanidation leach recovery compared to the unoxidised sample by more than 35.8%. Furthermore, it was shown that partial sulphide oxidation (37%) yielded comparable leach recovery (95.8%) to samples significantly more oxidised. It is hypothesised that biological oxidation preferentially oxidised sulphides minerals containing gold, namely arsenopyrite. This suggests that only partial oxidation of the Youanmi ore is required to achieve high gold recoveries through cyanidation.

#### Albion® Test-work

The Albion process is a combination of ultrafine grinding and oxidative leaching at atmospheric pressure. The first step is mechanical liberation using an IsaMill™ to grind the feed particles to a narrow size distribution. The second step is chemical liberation achieved by injecting supersonic oxygen, using the HyperSparge™ injection system, into the base of a series of Albion Leach Reactors to oxidise the gold concentrate.

Albion® Testwork was conducted on three composite samples as part of a 2021 testwork campaign, as previously announced to ASX on 23 December 2021. A summary of results are shown in Table 5 below:

**Table 5: Albion® Test-work Cyanidation Results**

Sample	S <sup>2-</sup> Oxdn. (%)	Mass Pull (%)	Consumption		Gold				
			NaCN (kg/t Conc.)	Lime (kg/t Conc.)	Feed <sup>2</sup> (g/t)	Tails (g/t)	Conc. Leach (%)	Tails Leach (%)	Overall Extn.
ROM	78	13.5	6.99	8.96	8.68	0.57	99.3	55.1	93.4
Upper HW	77	13.9	7.85	9.15	4.72	0.26	97.3	71.3	94.4
Upper Main	75	12.7	5.83	6.94	8.09	0.90	92.0	59.4	88.8

<sup>1</sup> Dissolution based on residue

<sup>2</sup> Calculated feed grade



## Geo-metallurgical Modelling

Rox has commenced a geo-metallurgical modelling program to further understand the following:

- The lithological domains across the ore body;
- Variability in gold recovery for different domains; and
- Potential relationships between mineralogical characteristics and gold recovery.

To date, analysis of over 1,000 LeachWELL assays have been conducted on RC and diamond intercepts.

## Oxidation Amenableity and PFS Trade-off Study

The BIOX® and Albion® Processes are well-known technologies across the global mining industry. BIOX is used at various gold projects around the world, including Agnico Eagle's Fosterville gold mine in Victoria and Endeavour Mining's recently commissioned Sabodala-Massawa Project in Senegal. GeoProMining LLC's, Zod gold mine in Armenia has successfully operated an Albion® plant since 2014.

Rox has engaged Maca Interquip and Metso to conduct engineering studies (including capital and operating cost estimates) for the Concentrate Processing Plant, Albion Plant and BIOX Plant.

The results of these studies, coupled with the completed metallurgical testwork, will assist Rox in determining if an oxidation process or a concentrate sales model will form the base case for the PFS.

**Table 6: PFS Processing Selections and attributable recoveries**

Processing Method	Floatation Au Rec. (%)	Float Tail Au Rec. (%)	Au Rec. from Con. (%)	Overall Recovery (%)
Con. Sales	90-91.5%	55-60%	-	95.5-96.6%
BIOX®	90-91.5%	55-60%	95-97.5%	91-94.3%
Albion®	90-91.5%	55-60%	92.3-99%	88.6-95.7%

## PFS Completion Timeline

With these engineering studies nearing completion, Rox anticipates that the Pre-Feasibility Study will be completed by the end of July 2024, slightly later than the originally expected completion date of June 2024.

Authorised for release to the ASX by the Board of Rox Resources Limited.

**\*\*\* ENDS \*\*\***

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## Competent Persons Statement

### Metallurgical Results

The information in this report that relates to metallurgical results is based on information compiled and reviewed by Mr Brant Tapley a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy ("AusIMM") and a Metallurgist and Director JT Metallurgy. Mr Tapley has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Tapley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

### Forward-Looking Statements

Certain statements in this announcement relate to the future, including forward-looking statements relating to the Company and its business (including its projects). Forward-looking statements include, but are not limited to, statements concerning Rox Resources Limited planned exploration program(s) and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward looking statements.

These forward-looking statements involve known and unknown risks, uncertainties, assumptions, and other important factors that could cause the actual results, performance or achievements of the Company to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement and deviations are both normal and to be expected. Neither the Company, its officers nor any other person gives any representation, assurance or guarantee that the events or other matters expressed or implied in any forward-looking statements will actually occur. You are cautioned not to place undue reliance on those statements.

### About Rox Resources

Rox Resources (ASX: RXL) is a West Australian focused gold exploration and development company. It is the 100 per cent owner of the historic Youanmi Gold Project near Mt Magnet, approximately 480 kilometres northeast of Perth, and owns the Mt Fisher - Mt Eureka Gold and Nickel Project approximately 140 kilometres southeast of Wiluna, with 100% ownership of certain tenure with the remaining tenure held via a joint venture (Rox 51%, earning into 75%).

Youanmi Project has a Total Mineral Resource of 2.3Moz of contained gold, with potential for further expansion with the integration of existing prospects into the Resource and further drilling. Youanmi was a high-grade gold mine and produced ~667,000oz of gold (at 5.47 g/t Au) before it closed in 1997. It is classified as a disturbed site and is on existing mining leases which have significant existing infrastructure to support a return to mining operations.

**Previously released ASX Material References** that relate to the Youanmi Gold Project include:

- Youanmi Deeps Metallurgical Testwork Achieves 96% Gold Extraction – 6 October 2021
- Impressive Albion Process Results Received for Youanmi Ore – 23 December 2021
- MRE update confirms Youanmi as significant high-grade gold project and paves way for PFS – 30 January 2024

## JORC Code, 2012 Edition – Table 1

### Section 1: Data and Sampling Techniques

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.	<p>Sampling consisted of reverse circulation (RC) and half-core NQ2 sized diamond samples.</p> <p>Metallurgical samples were selected and composited by Rox geologists and JT Metallurgical Services metallurgists to best reflect domains within the target mineralisation. These were selected using geological logging information and Fire Assay (Au) grades and ICP (other elements).</p> <p>Metallurgical composites were generated by splitting out using rotary splitter the desired mass of each interval composite. The composite was then thoroughly combined by passing through a rotary splitter three times. All composites were freezer stored in a sealed, labelled bag inside the laboratory</p>																																							
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The entire RC and diamond (DD) drilling sample was extracted prior to subsampling at surface next to the rig. Diamond and RC field duplicates were taken on selected samples to measure representivity of sample splits.																																							
	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.	<p>Industry sampling, preparation and assaying techniques have been used to acquire the current dataset.</p> <p>Sample preparation consisted of coarse crushing a maximum of 3 kg of the submitted sample, pulverising to &gt;85% passing 75 microns and homogenising the pulp. 50 g sample sizes were chosen for analysis of gold, with fire assay fusion and detection by atomic absorption spectrometry (AAS).</p>																																							
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).	<p>The Youanmi drilling database has been built up over several decades by several different operators. Only RC and DD holes have been used in the resource estimate.</p> <p>The collar table summary is tabulated below.</p> <table border="1"> <thead> <tr> <th>Hole Type</th> <th>Total # Holes</th> <th># Holes Used</th> </tr> </thead> <tbody> <tr> <td>AC</td> <td>2,314</td> <td>164</td> </tr> <tr> <td>AG</td> <td>86</td> <td>86</td> </tr> <tr> <td>DD</td> <td>442</td> <td>276</td> </tr> <tr> <td>RAB</td> <td>10,231</td> <td>2,623</td> </tr> <tr> <td>RC</td> <td>5,449</td> <td>2,825</td> </tr> <tr> <td>RCD</td> <td>48</td> <td>48</td> </tr> <tr> <td>RCGC</td> <td>5,849</td> <td>5,849</td> </tr> <tr> <td>TR</td> <td>5,415</td> <td>5,413</td> </tr> <tr> <td>UDD</td> <td>382</td> <td>381</td> </tr> <tr> <td>UGC</td> <td>3,378</td> <td>3,378</td> </tr> <tr> <td>VAC</td> <td>34</td> <td>0</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>33,677</b></td> <td><b>21,042</b></td> </tr> </tbody> </table>	Hole Type	Total # Holes	# Holes Used	AC	2,314	164	AG	86	86	DD	442	276	RAB	10,231	2,623	RC	5,449	2,825	RCD	48	48	RCGC	5,849	5,849	TR	5,415	5,413	UDD	382	381	UGC	3,378	3,378	VAC	34	0	<b>TOTAL</b>	<b>33,677</b>	<b>21,042</b>
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Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recoveries were recorded by the field geologist in the field during logging and sampling. Core recoveries where available were calculated based on nominal run lengths versus measured length of recovered core. 96% of the recorded intervals have core recoveries > 80%.																																							



Criteria	JORC Code explanation	Commentary
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Limited records relating to historical RC or diamond core sample recoveries have been identified, however, where described, sampling and recovery procedures are consistent with standard Australian industry standards.
	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.	No relationship between sample recovery and grade has been analysed.
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.	The Competent Person considers that the level of detail is sufficient for the reporting of metallurgical results
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Lithological logging is qualitative in nature. Logged intervals were compared to the quantitative geochemical analyses and geophysical logging to validate the logging.
	The total length and percentage of the relevant intersections logged.	Mineralised intercepts from diamond drillcore were cut using a diamond saw into half-core and sampled on either a 1m basis or over geological intervals from 0.3m to a maximum of 1.2m.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	RC samples were collected every metre on the drill rig using a cone splitter. A 1.5-3kg sample split was collected into a calico bag for laboratory submission. In some cases, composite samples of up to 5m were collected via spear sampling.  Anomalous composite samples were usually re-assayed at 1m intervals where composite assays were greater than 50ppb, 80ppb or 250ppb depending on the program.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Sample preparation consisted of drying, riffle splitting samples >3 kg, coarse crushing, pulverising to >85% passing 75 microns and homogenising the pulp. The Competent Person considers these methods appropriate for this style of mineralisation.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Rox have used 14 different Certified Reference Materials (CRMs), covering a range of Au values, as well as blanks.  Campaign-based analysis and reporting of quality control data was undertaken of blanks, field duplicates, and CRMs.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Limited field duplicate data is available, for post-mining drilling. The precision of the field duplicates is moderate, with 10% of sample pairs having an Average mean difference of >30%; no bias between the paired samples was noted. The precision is accounted for in the variography.
	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.	Rox took field duplicates at a frequency of 1 in 25 samples since the start of drilling in 2019. Generally, results were reasonably precise and accurate indicating the sampling was representative of the in-situ material collected
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to the grain size of the material being sampled.
	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.

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		<table border="1" data-bbox="922 268 1455 492"> <thead> <tr> <th>Exploration Company</th> <th>Analytical Laboratory</th> <th>Assay Technique</th> </tr> </thead> <tbody> <tr> <td>Austwhim</td> <td>Genalysis, Perth</td> <td>Fire Assay, AAS finish</td> </tr> <tr> <td>Aquila</td> <td>Genalysis, Perth</td> <td>Fire Assay, AAS finish</td> </tr> <tr> <td>CRA</td> <td>SGS, Perth</td> <td>Fire Assay</td> </tr> <tr> <td>Goldcrest</td> <td>Genalysis, Perth</td> <td>Composite RC samples using Aqua Regia digest and single metre RC and core samples using Fire Assay, AAS finish</td> </tr> <tr> <td>GMA</td> <td>GMA Lab, Perth</td> <td>Aqua Regia AAS with re-assay via Fire Assay on samples returning preliminary results &gt; 1g/t</td> </tr> <tr> <td>Apex</td> <td>Genalysis, Perth</td> <td>Fire Assay, AAS finish</td> </tr> <tr> <td rowspan="3">ROX</td> <td>Minanalytical, Perth</td> <td>Photon Assay</td> </tr> <tr> <td>Genalysis, Perth</td> <td></td> </tr> <tr> <td>Aurum, Perth ALS, Perth</td> <td>Fire Assay, AAS finish</td> </tr> </tbody> </table> <p data-bbox="916 515 1461 663">Metallurgical testwork was conducted at ALS Metallurgy in Perth and Metso South Africa (BIOX® testwork) with all laboratory procedures used being commonly accepted and certified techniques for gold. Solid and Solution samples were prepared and assayed at ALS or Metso South Africa.</p> <p data-bbox="916 680 1461 752">Duplicate 50g fire assays with an AAS finish were used to determine gold assays. This is a total technique and is considered appropriate for this level of testwork.</p> <p data-bbox="916 770 1461 869">Quality control was carried out by inserting blanks and standards into the sampling chain. These all demonstrated acceptable levels of accuracy and precision.</p> <p data-bbox="916 887 1461 981">All Flotation and leach testwork in Perth was conducted in site water sourced from Rox's Kathleen Open Pit. This water is deemed brackish and best represents future water sources.</p>	Exploration Company	Analytical Laboratory	Assay Technique	Austwhim	Genalysis, Perth	Fire Assay, AAS finish	Aquila	Genalysis, Perth	Fire Assay, AAS finish	CRA	SGS, Perth	Fire Assay	Goldcrest	Genalysis, Perth	Composite RC samples using Aqua Regia digest and single metre RC and core samples using Fire Assay, AAS finish	GMA	GMA Lab, Perth	Aqua Regia AAS with re-assay via Fire Assay on samples returning preliminary results > 1g/t	Apex	Genalysis, Perth	Fire Assay, AAS finish	ROX	Minanalytical, Perth	Photon Assay	Genalysis, Perth		Aurum, Perth ALS, Perth	Fire Assay, AAS finish
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	Genalysis, Perth																													
	Aurum, Perth ALS, Perth	Fire Assay, AAS finish																												
	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.	N/A																												
	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.	<p data-bbox="916 1223 1461 1438">Historical assay quality control measures are largely unknown. Regular duplicates with satisfactory results were reported from some programmes. The Metana (bulk of historical samples) laboratory appears to have systematically undertaken a 10% duplicate fire assay analysis. No system of submission of standard reference material and blank samples is believed to have been in place at the time of this drilling, in line with local industry practice at that time.</p> <p data-bbox="916 1456 1461 1576">Goldcrest took field duplicates, standards and blanks on an approximate 1 in 20 basis (5%) and all Goldcrest drill samples were submitted for assay. Goldcrest twin drilling in shallower areas has verified the drill results of previous explorers.</p> <p data-bbox="916 1594 1461 1738">Historical quality assurance and quality control data relating to the remaining resources is either no longer available or is inconsistently reported. Given the long time period over which the data was generated it was not possible to independently verify the quality of the data.</p> <p data-bbox="916 1756 1461 1895">Rox took field duplicates at a frequency of 1 in 26 samples and inserted external standards and blanks at a frequency of 1 in 26 samples. Laboratory introduced QAQC samples included coarse reject and pulp repeats and internal standards. Generally, results were precise and accurate with only a few inconsistencies identified in</p>																												

Criteria	JORC Code explanation	Commentary
		a small number of batches due to mislabelling or sample swaps.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Intersections selected by Rox were reviewed by the Competent person and considered appropriate for the mineral resource estimate.  Metallurgical test results were verified by JT Metallurgical Services metallurgists, Brant Tapley and Jake Stokes.
	The use of twinned holes.	There are no twinned holes in the resource area.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The data entry, storage and documentation of primary data was completed on Microsoft Excel spreadsheets and local hard drives, then imported into a central database.  All metallurgical assay data were received in electronic format from ALS Metallurgy and Metso then checked and verified.  Original Metallurgical laboratory data files in Excel and PDF formats are stored together in JTs database.
	Discuss any adjustment to assay data.	Recent drillholes (Goldcrest, Rox) have been surveyed using differential GPS tools. Older holes (largely Eastmet or GMA) do not have records of the survey methods, although typically these are expected to be by total station tools.  No adjustments or calibrations have been made to any assay data.
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.	Approximately 90% of drillholes longer than 100m have been down-hole surveyed, mainly with gyroscopic tools; a minority of older holes were surveyed with multi-shot or single-shot tools. Drillholes less than 100 m long typically do not show any material downhole deviation
	Specification of the grid system used.	Topographic data were captured in GDA94 MGA Zone 50 grid system
	Quality and adequacy of topographic control.	A topographic surface was built from end of month pickups of pits, dumps, infrastructure and surfaces by the mine survey team. The Competent Person considers that the surface is suitable for this MRE.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Average drill hole density is highly variable, ranging from 10m x 10m to 160m x 160m, and generally decreasing with depth.  Metallurgical composites are generated from drill holes across the known mineralisation and are considered representative of the respective mineralised bodies. These samples are composited into grade and/or locational domains.
	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.	The Competent Person considers the mineralised lodes have sufficient geological and grade continuity to support the classification applied to the Mineral Resources given the current drill pattern
	Whether sample compositing has been applied.	Assay samples were composited to 1m lengths within the mineralised intersection with a minimum of 0.5m samples at the boundaries of the intersection  Selected intervals for metallurgical testwork were thoroughly composited by passing samples through a rotary splitter three times.

Criteria	JORC Code explanation	Commentary
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.	No grade effect of the relationship between sample direction and mineralised structures has been identified.
	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.	No relationship has been noted between drillhole inclination and mineralisation.
Sample security	The measures taken to ensure sample security.	<p>No details are available on the historic sample security measures, however sufficient security measures were taken by Rox prior to delivery of the samples to the laboratory. Samples were kept in a locked core storage area until transport by truck to the laboratory.</p> <p>Metallurgical samples have at all times been in possession of ALS, Metso or their designated contractors. Chain of custody was maintained throughout</p> <p>Testwork residue samples are sealed inside labelled plastic bags and stored in cold storage</p>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<p>A low-level review of sampling techniques and data has been undertaken by an independent third-party consultant</p> <p>Scanning of Metallurgical sample quality against assay results for potential errors is undertaken, with no issues to date. All solid and solution assays have an appropriate number of blanks and standards included. These are verified by both ALS Metallurgy and JTs</p>
Metallurgical factors or assumptions	<p>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.</p> <p>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</p> <p>Whether the metallurgical process is well-tested technology or novel in nature.</p> <p>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</p> <p>Any assumptions or allowances made for deleterious elements.</p> <p>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</p> <p>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</p>	<p>Metallurgical testwork is deemed appropriate for this style of mineralisation.</p> <p>Locked cycle testwork conducted on a ~12kg representative composite best reflects the likely future flotation circuit incorporating recirculating loads. A bulk sample is more representative than standard 1kg floats reducing any potential effect caused by coarse nuggety gold on grade or recovery determination</p> <p>All solution and solid samples are assayed in at least duplicate using commonly accepted and verified techniques.</p> <p>Selected test conditions best reflect actual plant conditions</p> <p>Comprehensive head assays were conducted on generated composites by ALS Metallurgy who is NATA accredited.</p> <p>Composites were selected to ensure all known domains were thoroughly represented in the target mineralisation</p> <p>Metso oversaw the BIOX® testwork at their South African facilities. JTs managed the delivery of sample from ALS Metallurgy to Metso, the supervised the subsequent testwork and reporting. Metso are considered industry leaders in the BIOX® process with Fosterville Gold Mine successfully operating their system since 2005.</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also applies 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 Youanmi mining centre is covered by a Joint Venture agreement with Venus Metals Corporation Limited known as the 'OYG JV'. This comprises ten granted Mining Leases, with a beneficial interest of Rox 70% and Venus 30%. The leases are M57/51, M57/75, M57/97, M57/109, M57/135, M57/160A, M57/164, M57/165, M57/166 and M57/167
	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.	There are no impediments preventing the operation of the lease.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<p>Gold was first discovered at Golden Crown, just to the south of Youanmi in 1894. Some ore from the area was carted to the government battery at Mount Magnet for treatment.</p> <p>Further prospecting led to the discovery of further deposits in 1905, and production commenced from the United and Hill End mines. The Main Lode was discovered in 1908, and the townsite of Youanmi was gazetted in 1910.</p> <p>Youanmi Gold Mine Limited was floated in 1911 and commenced operations based on the Main Lode. Further discoveries led to the development of the Pollard Lodes and Currans to the south, where a small treatment battery was established.</p> <p>The mine struggled during World War One with a shortage of labour and high costs, and finally closed in 1922. It employed around 100 men.</p> <p>In 1934, the Youanmi Gold Mining Limited was floated in London with the intention of restarting underground mining. Production started in August 1936 and continued until 1942, when a shortage of skilled labour due to World War II, resulted in a second closure. About 200 men were employed in this phase. The maximum vertical depth reached by the workings was about 300m below the natural surface; the average stope width was 1.5m. After 1942 the townsite was abandoned; the only remaining infrastructure is the town cemetery.</p> <p>Eastmet Limited, an 80% owned subsidiary of Metana Minerals NL, entered into a JV agreement with Tantalex Ltd and Franmere Holdings Pty Ltd to earn 50% of a group of tenements at Youanmi. Open mining began in October 1986 and the 600,000 tpa conventional Carbon-In-Pulp plant was commissioned on 31 December 1986, by which time Eastmet had acquired the remaining 50% of the Project. The original tenements covered the Main, Hill End, and Western Laterite open-pits; additional tenements acquired covered the United North, Kathleen, Rebel-Kurrajong and Bunker open-pits and the unmined Commonwealth and Connemara resources.</p> <p>Ore and waste were mined on 2.5m flitches by backhoe excavators and hauled by 50t offroad dump trucks. Exploration and development drilling was completed on a 320m by 10m grid, with the holes inclined -60 to the east and sampled at 1m intervals. Grade control during mining used Ditchwitch trenches cut from west to east spaced 5m apart and sampled at 1m intervals along the trench. Additional RC drilling was used in new areas and at the transition from oxide to fresh ore.</p>

Criteria	JORC Code explanation	Commentary
		<p>After completion of the Main Lode pit in 1989, satellite pits were mined including the high-grade Penny West pit, 28 km to the south. The maximum production rate was 187,000 tonnes per quarter. The peak quarterly gold production was 37,900 oz in September 1991. The plant ceased treatment in October 1992 and mill cleanup continued into January 1993.</p> <p>Between 1990 and 1993 Eastmet completed a programme of deep diamond drilling to test the extensions of Main Lode to a maximum of 750m vertical depth. Gold Mines of Australia Limited (GMA) was created in 1993 when Eastmet, Metana and Paragon Resources NL were merged. In October 1993, the GMA board approved development of the Youanmi underground mine. The ore was processed through a new 220 ktpa flotation and bacterial oxidation circuit, however the operation ultimately failed to achieve production targets, and the underground mine was closed in November 1997.</p>
Geology	Deposit type, geological setting and style of mineralisation.	<p>The Youanmi gold deposits are hosted in the Youanmi Terrane.</p> <p>They were formed where a N-striking sequence of high-Fe tholeiitic mafic rocks and BIFs intersects a NNW-striking, variably WSW-dipping high-strain zone interpreted to be a sinistral-normal shear system.</p> <p>The foliation is axial planar to a S-plunging isoclinal synform. Mined deposits lie at various positions on this structure:</p> <ul style="list-style-type: none"> <li>• Western limb: Bunker, United North (E-dipping stratigraphy)</li> <li>• Hinge: Rebel, Kathleen (S-dipping stratigraphy)</li> <li>• Eastern limb: Hill End, Main Pit (W-dipping stratigraphy)</li> </ul> <p>The east limb of the folded mafic sequence is stoped out by the irregular intrusive contact of a large monzogranite intrusion. The exposed monzogranite-mafic contact has low strain, suggesting the intrusion of the monzogranite is late in the folding and formation of the foliation.</p> <p>Interflow sediments are altered chlorite-quartz-magnetite rocks up to several metres thick. These sediments have focused much of the strain and frequently host auriferous shears.</p> <p>The mafics and monzogranite are intruded by intermediate porphyry bodies with complex geometric and timing characteristics.</p> <p>Gold mineralisation and alteration are localised in N- to NNW-striking, and moderately to steeply W-dipping anastomosing shear zones 1m to 20 m thick, averaging 3 to 4m. The mineralogy of the shear zones is sericite-quartz mylonites with abundant sulphides, chlorite and carbonate, with accessory biotite, rutile and apatite. The gold occurs within the pyrite and arsenopyrite, which may be up to 15% of the volume of the mylonite. They are interpreted to have formed relatively late in the geological history of the area, as they crosscut the foliation and the monzogranite.</p> <p>A lesser mineralisation style is quartz vein stockwork lodes within the monzogranite. These trend NNE and are the brittle equivalent of the ductile shear zones in the mafic. The quartz veins are usually steeply dipping and a few centimetres wide, with very high grades; coarse</p>

Criteria	JORC Code explanation	Commentary
		<p>visible gold has been noted in drilling in the Grace prospect.</p> <p>Weathering has reached more than 80m below the natural surface. Previous open-pit mining was almost entirely within the oxide zone.</p>
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> <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>	Exploration Results are not being reported.
	<p>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.</p>	Exploration Results are not being reported.
Data aggregation methods	<p>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.</p>	Exploration Results are not being reported.
	<p>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.</p>	Exploration Results are not being reported.
	<p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	Exploration Results are not being reported.
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p>	
	<p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p>	Exploration Results are not being reported.
	<p>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').</p>	Exploration Results are not being reported.
Diagrams	<p>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.</p>	Exploration Results are not being reported.
Balanced reporting	<p>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.</p>	Exploration Results are not being reported.
Other substantive exploration data	<p>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.</p>	<p>All meaningful and material metallurgical testwork results are detailed in the body of this announcement. The 2024 metallurgical testwork program included:</p> <ul style="list-style-type: none"> <li>• Locked cycle flotation testwork and analysis (QEMSCAN), and</li> <li>• Bio-oxidation testwork (BIOX®) and analysis.</li> </ul>

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).	<p>Work planned is as follows:</p> <ul style="list-style-type: none"> <li>• Digitisation of the limited historical underground mapping</li> <li>• Cutting of unsampled historical core to add additional intersections to the interpretation.</li> <li>• The use of the historic stope pickups to refine the interpretation locally.</li> </ul> <p>Additional infill and extensional drilling in Inferred Resource areas to upgrade resources to Indicated and target high grade zones identified in resource model.</p> <p>Geometallurgical domain testwork is underway through initially BLEG testwork (1kg pulverised intensive leach followed by fire assay) with ICP and mineralogical testwork. Variability testwork is then planned for the established domains to assess gold recovery, flotation performance and reagent consumptions.</p>
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Exploration Results are not being reported.