



Fast Facts

ASX Code: RNS
Shares on issue: 306.6 million
Market Cap: ~\$25 million
Cash: \$3.8 million (31 Dec 2013)

Board & Management

Alan Campbell, Non-Exec Chairman
Dave Kelly, Non-Exec Director
Justin Tremain, Managing Director
Nick Franey, Head of Exploration
Brett Dunnachie, CFO & Co. Sec.

Company Highlights

- Targeting multi-million ounce gold systems in a new Intrusive Related Gold province in Cambodia
- First mover advantage in a new frontier
- Okvau Deposit (100% owned): Indicated and Inferred Mineral Resource Estimate of 15.6Mt @ 2.4g/t Au for 1.2 Million ounces¹
- Mineralisation is from surface, amenable to open pit mining and remains 'open'
- Multiple high priority, untested targets
- Strong shareholder base

¹ Refer Table Three

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**Excellent Metallurgical Results for Okvau
Overall Gold Recoveries of Up to 90%**

- **Positive metallurgical test results indicate overall gold recoveries of 88% to 90% for the Okvau Deposit**
- **High gold recoveries achieved via a coarse grind and flotation to produce a separate low mass, high grade concentrate, then fine grinding of the concentrate followed by conventional cyanide leaching**
- **Flotation optimisation work indicates potential to undertake a coarser primary grind of 150 microns**
- **Scope for further optimization of metallurgical performance with test work ongoing**
- **Positive metallurgical test results allows for commencement of Scoping Study on the development of the Okvau Deposit**

Renaissance Minerals Limited (ASX code: RNS) ("Renaissance" or the "Company") is pleased to announce that it has received excellent results from metallurgical test work on samples from the 1.2Moz Okvau Deposit (refer Table Three) in Cambodia. Total gold extraction of between 88% and 90% was achieved by coarse grinding and flotation, fine grinding of a low mass concentrate and conventional cyanide leaching of concentrate and flotation tails.

A master composite was composed of 12 variability composite samples representative of the Okvau Deposit. These samples were selected from across the main geological domains of the Okvau Deposit at varying depths. All samples were from diamond core in primary mineralisation. All drilling samples at the Okvau Deposit have been subject to multi-element analysis providing useful geochemical data to assist in selecting samples for metallurgical test work that are representative of the Okvau Deposit.

Metallurgical test work has comprised:

- Whole ore leaching of samples
- Rougher sulphide flotation
- Fine grinding of concentrate
- Leaching of flotation concentrate
- Leaching of flotation tailings

The resultant overall gold extraction summary results are presented in Table One (see below for further detail):

Table One | Overall Flotation & Concentrate Leach Gold Extraction

Type	Grind Size (P80, µm)		Overall Gold Extraction, %		
	Whole Ore	Concentrate	Concentrate	Flotation Tail	Total
Whole Ore Leach	75	N/A	-	-	71.1
Concentrate Leach	75	'as is'	64.0	10.1	74.2
Fine Grind/Leach	75	13.1	78.8	9.4	88.2
Fine Grind/Leach	75	9.5	79.6	10.0	89.7

Bulk flotation was undertaken at a primary grind size (P_{80}) of 75 μm to produce a concentrate for fine grinding and cyanide leaching. However, flotation testing was also carried out at varying primary grind sizes (P_{80}) between 53 μm and 150 μm . Results from the 150 μm and 75 μm primary grind were very similar indicating a cost effective coarse grind could be selected for whole ore (refer Figure One | Flotation Performance by Grind Size).

Gold extraction rates during cyanide leaching of the flotation tails and the concentrate were extremely rapid and largely complete within 3-4 hours (refer below for Figure Three | Leach Kinetics).

These results indicate the Okvau primary gold mineralisation may be extracted through a conventional cyanide leach process circuit without any requirement for intensive oxidation. These positive metallurgical results will now allow the Company to commence a Scoping Study to assess the potential development of the Okvau Deposit.

The Company believes there is considerable scope to improve overall metallurgical performance, particularly with regard to:

- Coarse primary grind within minimal impact on flotation performance (refer Figure One | Flotation Performance by Grind Size)
- Reagent usage and leach and flotation residence time (refer Figure Three | Leach Kinetics)

Renaissance Minerals' Managing Director, Justin Tremain said **“These are excellent and highly encouraging metallurgical results. They demonstrate our ability to achieve high gold recoveries through proven industry standard technology without the requirement for a capital or operating cost intensive oxidation process.**”

The potential ability to undertake a very coarse grind on whole ore feed may result in substantial power savings with only a small impact on overall gold recoveries. The volume of concentrate subject to fine grinding is likely to be less than 10% of the ore feed. Furthermore, extremely rapid leach kinetics provides scope for optimization of re-agent usage and leach residence time.”

Metallurgical Test Work Detail

Introduction

The metallurgical test work was completed at the Bureau Veritas Minerals Pty Ltd laboratories in Perth, Western Australia under the management of the Company's metallurgical consultant, Metpro Consultants Pty Ltd.

Metallurgical testing has been carried out on a Master Composite (MC1) and 12 variability samples (represented by 12 different diamond drill cores) forming part of the 1.2Moz Indicated and Inferred Resource Estimate for the Okvau Deposit (refer Table Three) in Cambodia. MC1 was formed from a blend of the 12 variability samples. The 12 samples represent the three major ore domains forming the resource (Northern Diorite domain, Southern Diorite domain and Western Hornfels domain), and are represented by ore from down hole depths varying between 62 metres and 313 metres.

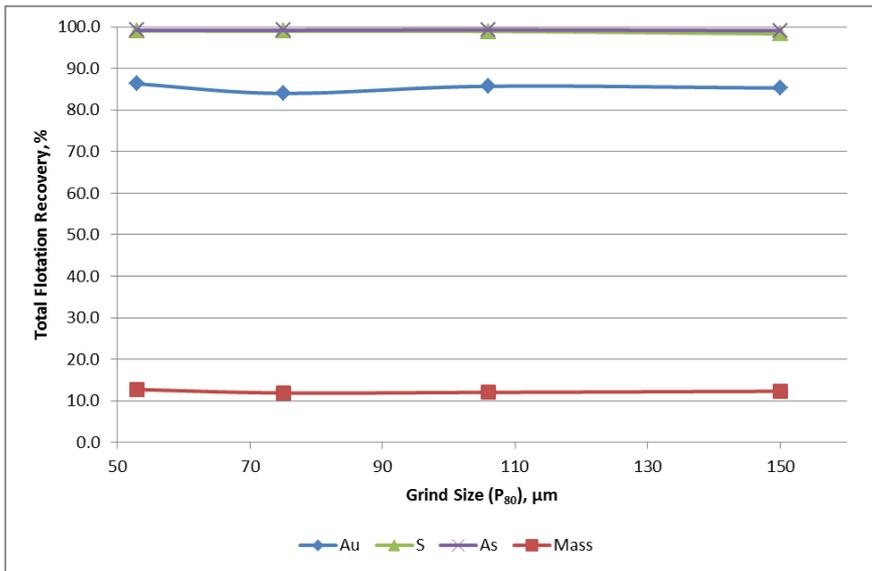
Metallurgical test work has comprised:

- Whole ore leaching of samples
- Rougher sulphide flotation
- Fine grinding of concentrate
- Leaching of flotation concentrate
- Leaching of flotation tailings

Flotation

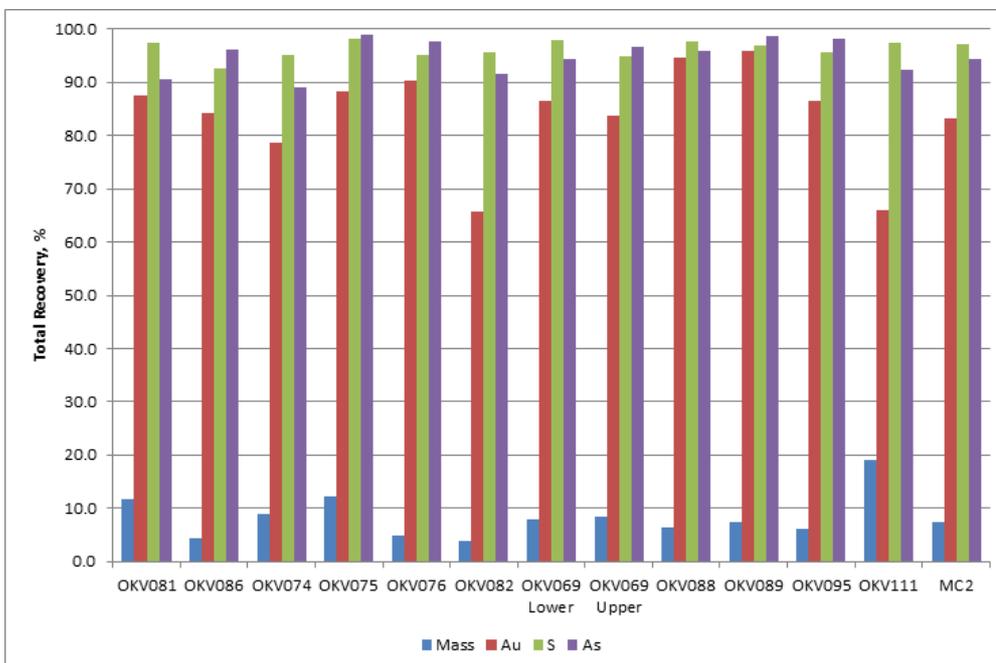
Initial flotation testing of the Okvau Master Composite (MC1) ore indicated excellent response to a standard bulk sulphide flotation circuit using copper sulphate as activator, xanthate as collector and frother at natural pH. MC1 was tested at varying primary grind sizes (P_{80}) between 53 μm and 150 μm with the results (refer Figure One | Flotation Optimisation by Grind Size) indicating little difference in the recovery of sulphide minerals across the grind size range. Sulphur and arsenic recovery were consistently greater than 98% whilst gold ranged between 85% and 90%. Mass recovery, which is dependent of sulphur feed grade, was approximately 12% to 13%, however, there is scope to reduce this to below 10% by producing a higher grade rougher concentrate following further test work. The laboratory residence time for the flotation tests was 12 minutes, although the last 7 minutes contributed less than 1% sulphur recovery indicating rapid flotation kinetics.

Figure One | Flotation Optimisation by Grind Size



Each of the 12 variability composites and another Master Composite (MC2) were tested under similar conditions at 75 μm . The total recovery for each of the major components; mass, gold, sulphur and arsenic are summarised in Figure Three | Flotation Variability Test Work. For all tests, sulphur and arsenic recovery exceeded 90% and gold ranged between 65% and 96% (average 84%) dependent on the gold mineralogy. Given the flotation tailings were to be subject to cyanide leaching, high sulphur and arsenic recoveries in the flotation was most critical. Mass recovery varied with sulphide grade in the samples and averaged 8.4%.

Figure Two | Flotation Variability Test Work



Leaching

a. Whole Ore Leaching

Each variability composite was subjected to whole ore cyanide leaching (48 hours) to provide a baseline for gold extraction. The total gold extraction for all variability composites averaged 71% and was also 71% for the MC1.

b. Flotation Concentrate Leaching

Previous metallurgical test work had indicated that gold associated with sulphide mineralisation was responsible for the poor performance of the cyanide leach on whole ore. This was the basis for the inclusion of sulphide flotation. Flotation concentrate from MC1 was subjected to fine grinding using a laboratory stirred mill to produce concentrate samples at nominal grind sizes (P80) of 10 μm and 15 μm . These samples, along with an unground sample or 'as is' sample, were then subjected to cyanide leach for a period of 48 hours. A flotation tail sample was also subjected to a cyanide leach.

Gold extraction from leaching of both the flotation tails and concentrate, along with the overall gold extraction, are shown in Table Two:

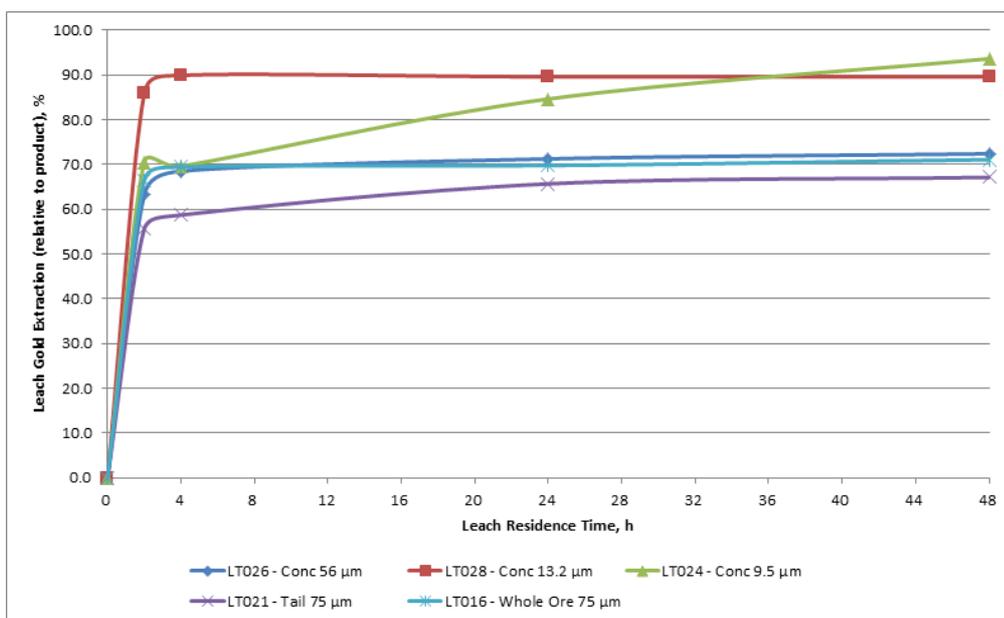
Table Two | Overall and Stage Gold Extraction

Type	Grind Size (P80, μm)		Gold Extraction % (by stage)		Overall Gold Extraction, %		
	Whole Ore	Concentrate	Concentrate	Flotation Tail	Concentrate	Flotation Tail	Total Gold
Whole Ore Leach	75	N/A	N/A	N.A	N/A	N/A	71.1
Concentrate Leach	75	'as is'	75.4	67.1	64.0	10.1	74.2
UFG	75	13.1	91.6	67.1	78.8	9.4	88.2
UFG	75	9.5	93.6	67.1	79.6	10.0	89.7

The data indicates that for a flotation regrind product of 10 μm to 13 μm , overall leach extraction (concentrate plus tail) may be increased from 71% gold (whole ore) to between 88% Au and 90% gold. In order to confirm these results, two 'bottle roll' tests were undertaken on surplus flotation product at a regrind of 13 μm , which returned overall leach extractions of 86.3% and 86.4% gold. These tests were conducted without the benefit oxygen injection but will addition of lead nitrate.

Figure Three below shows the leach kinetic curves for flotation concentrate samples at no regrind (being 56 μm), 13 μm and 9.5 μm and for the flotation tail and whole ore samples. The 'bottle roll' leach kinetics are shown for the flotation concentrate sample at 13.2 μm (LT028) which demonstrate the benefit of lead nitrate to the leach kinetics.

Figure Three | Leach Kinetics



Cambodian Gold Project | Background

The 100% owned Okvau and adjoining O'Chhung Exploration Licences cover approximately 400km² of the total project area and are located in the eastern plains of Cambodia in the Mondulkiri Province approximately 265 kilometres north-east of the capital Phnom Penh. The topography is undulating with low relief 80 to 200 metres above sea level. There are isolated scattered hills rising to around 400 metres. The area is sparsely populated with some artisanal mining activity. Existing dirt roads and tracks provide for sufficient access for the exploration.

In March 2013, Renaissance announced an independent JORC-compliant indicated and inferred resource estimate at the Okvau Deposit of 15.6Mt @ 2.4g/t for 1,200,000 ounces (Refer Table Three). The Okvau Deposit is from surface and remains 'open' with potential for further resource growth. The current Okvau resource has a strike extent of 500 metres and covers approximately 250 metres of width of the mineralised vein system. The current resource estimate is underpinned by approximately 28,000 metres of diamond drill core.

The Okvau Deposit and other gold occurrences within the Okvau and O'Chhung exploration licences are directly associated with diorite and granodiorite intrusions and are best classed as 'Intrusive Related Gold' systems.

Within the Okvau and O'Chhung licences are a number of high priority exploration prospects based upon anomalous geochemistry, geology and geophysics which remain untested with drilling. These targets are all located within close proximity to the Okvau deposit.

About Cambodia

Cambodia is a constitutional monarchy with a constitution providing for a multi-party democracy. The population of Cambodia is approximately 14 million. The Royal Government of Cambodia, formed on the basis of elections internationally recognised as free and fair, was established in 1993. Elections are held every 5 years with the last election held in July 2013. Cambodia has a relatively open trading regime and joined the World Trade Organisation in 2004. The government's adherence to the global market, freedom from exchange controls and unrestricted capital movement makes Cambodia one of the most business friendly countries in the region.

The Cambodian Government has implemented a strategy to create an appropriate investment environment to attract foreign companies, particularly in the mining industry. Cambodia has a modern and transparent mining code and the government is supportive of foreign investment particularly in mining and exploration to help realise the value of its potential mineral value.

Detailed information on all aspects of Renaissance Minerals projects can be found on the Company's website: www.renaissanceminerals.com.au.

For further information please contact
Renaissance Minerals Limited
Justin Tremain, Managing Director

The information in this report that relates to Exploration Results is based on information compiled by Mr Nick Franey, a full time employee of the company and who is a Member of The Australasian Institute of Geoscientists. Mr Nick Franey has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Nick Franey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Figure Four | Okvau Deposit Regional Location

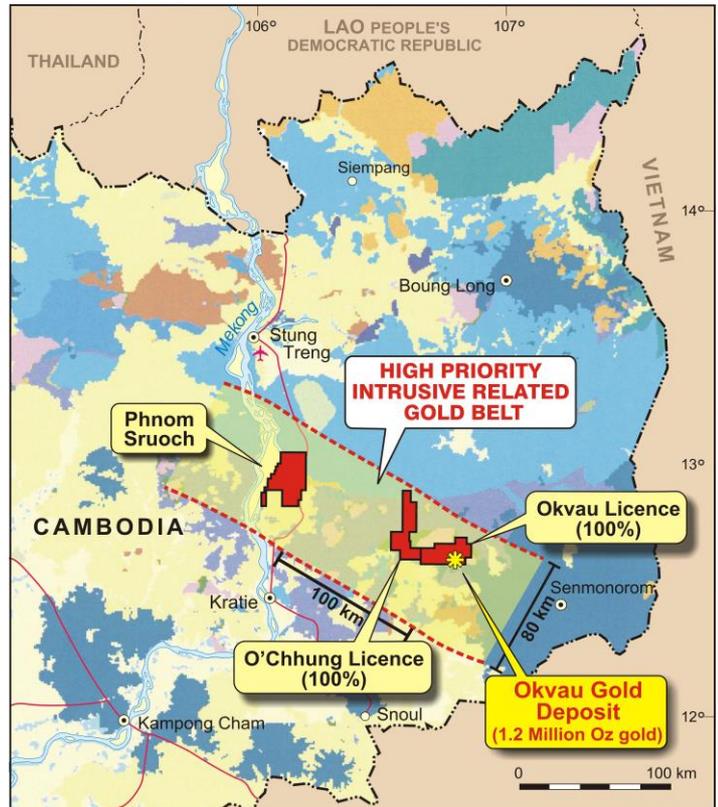


Table Three | Okvau Deposit Resource Estimate

Resource Classification	Cut-Off ¹ (g/t)	Tonnage ² (Mt)	Grade Au ² (g/t)	Contained Gold ² (Moz)
Indicated (-150mRL and above)	0.65	15.2	2.3	1.11
Inferred (below -150mRL)	0	0.5	5.9	0.09
Total		15.6	2.4	1.20

Notes

¹ The Inferred resources are reported at a 0g/t gold cut-off as volumes are already quite restricted by a 2.0 g/t gold threshold

² Tonnes are rounded to nearest 0.1 Mt, grade to 0.01 g/t, and contained gold to 10,000 oz. Totals may appear different from the sum of their components because of rounding

This Mineral Resource estimate for the Okvau Gold project was prepared by Robin Simpson of SRK Consulting (Australasia) Ltd. Mr Simpson is a Member of the Australian Institute of Geoscientists (AIG), and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Simpson consents to the inclusion of the matters based on his information in the form and context in which it appears. The information in this announcement that relates to Mineral Resources and Ore Reserves was prepared and first disclosed under the JORC code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.