



## ASX ANNOUNCEMENT

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### **RESOURCE AT AMAYAPAMPA INCREASED BY 19% OR 210,000 OZ TO 1,294,000 OZ MEASURED AND INDICATED COMPONENT INCREASED BY 48%**

#### **Key Points**

- Amayapampa resource upgrade completed - 19.4% increase in the mineral resource base; up by 210,000 ounces of gold to 1,294,000 ounces.
- Significant increase in Measured and Indicated mineral resource - up 48% (321,000 ounces to 990,000 ounces). This is crucial given this will form the portion of the mineral resource that is assessed for conversion into ore reserve.
- Along with the new drilling and surface sampling data, the new surface topography has been important in the significant confidence increase as it allows the correct location of sample data.
- Approximately half the mineral resource increase was due to drilling and surface sampling undertaken during the company's 2009 program. The remainder was due to a reduction in the cut-off grade of the resource.
- A scoping study recently completed by Gekko Systems on the proposed treatment plant indicated potential for a low cut-off grade (0.3 g/t Au) although a conservative cut-off grade of 0.4 g/t Au has been used for this new mineral resource.
- Results support near-term production potential – 80% of sampling in first 10 metres completed by Republic and 20% of overall data now consisting of proprietary activity.
- Recent independent geological mapping and historical data support the expectation that the mineralisation at Amayapampa has good potential for extension to the north.
- Structural geology of the Project points to the potential for larger bodies of mineralisation at Amayapampa in the 1-kilometre wide zone that hosts the existing deposit.
- The new model further supports the potential for a significant ore reserve to be estimated at Amayapampa at completion of the Bankable Feasibility Study ("BFS") which is well underway.

The Directors of Republic Gold Limited ("Republic" or "Company") today announced that the Company has completed its upgrade of the geological block model at the Amayapampa Gold Project ("Amayapampa" or "Project") in Bolivia. The mineral resource has been increased by 19.4% from 1,084,000 ounces to 1,294,000 ounces (see Table 1 below).

Republic's Technical Director; Neb Zurkic, said: "This new geological model and subsequent mineral resource estimate provides the Company with a strong platform for the completion of the BFS. Republic is increasingly confident as we continue to confirm the potential at Amayapampa, and advance towards ascertaining the development potential of what the company expects to be a world-class gold mine in the highly prospective country of Bolivia.

"Substantial amounts of new data have been included in this estimate, including diamond drilling, surface sampling, topographical and mapping data. The Company is now more confident that this new yet conservative geological model will prove to be robust in the open pit optimisation stage and subsequent mining and development stage. The latest resource modelling has provided Republic with a comfortable degree of upside as we move towards developing the Amayapampa Project."

All the Company's 2009 drilling, trenching and shaft sampling data has been included in this new mineral resource estimate, as well as the new surface topography – see Figure 1 below.

### **Comments on the New Model**

The new model is more selective than those estimates announced by Republic to-date, with less tonnage at a higher grade than the previous model. The average grade added to the sampling over the past 18 months was lower than the average grade accounted for under the previous model, and the Company expects that the conservative approach to the latest model will increase the density and scope of the overall data on-hand. Republic has taken the necessary steps to ensure that the latest modelling has been as thorough as possible, which has resulted in a delay of the mineral resource upgrade due to topographical model difficulties, but was a prudent step in quantifying this result.

The 20% (or 80% near the surface) addition of new data to the database comprises 1,229 diamond core samples, 1,224 surface trench samples and 1,114 surface shaft samples (see Figure 2). Although the global mean grade of the Company's additional samples were slightly lower in grade to the then-existing dataset, the combination of elements that constituted this geological block model update resulted in an increase of approximately 100,000 ounces. Given that the drilling, trenching and shafting undertaken by the Company was aimed at closing gaps in existing database and/or cross checking existing high grade data, the magnitude of the increase in global ounces is an endorsement of the Company's approach to determining the previous dataset and the current geological outlook.

The increased confidence in the new geological block model has allowed for the grade top cuts to be changed. The old model used a global top cut of 15.5 g/t Au. The new model uses a top cut of 20 g/t Au in the primary mineralisation, 10 g/t Au in the transitional mineralisation and 5 g/t Au in the surface oxide mineralisation. The 20 g/t Au top cut in the primary mineralisation is now more in line with previous consultants' work and the more severe top cuts in the surface mineralisation forms part of the Company's more conservative approach to accounting for high variance in the grade of the trench sampling which may be caused by the presence of coarse gold.

The presence of this coarse gold will mean it is likely that preliminary mining will result in significantly higher grades through the treatment plant in respective areas. Once the initial volumes of ore have been processed through the treatment plant and the Company has a more comprehensive handle on the potential for very high grades within the oxide mineralisation, the current oxide top cut may be relaxed.

The modelling work will continue, with environmental and metallurgical estimations and risk assessments to be completed prior to the handover of the model for pit optimisation, design, planning and scheduling. The only outstanding sampling that remains is the collection and calculation of additional bulk density data. This will be completed in the current Quarter. The existing bulk density database needs to better represent oxidation types and the mineralisation spatially to ensure tonnage estimates remain robust.

### **Structural Geology**

The report following the site visit in September 2009 by the Company's consulting structural geologist, Dr Steve King's will be finalised shortly. Dr King's mapping was effectively utilised to provide detail on the control of the ore blocks in what is a complicated geological structural setting. This new resource estimate has also used the original interpretation of the mineralisation. Both this historical interpretation and Dr King's interpretation tie in very well with the geostatistics generated for this new geological block model. This has resulted in better estimation of local grades and a better understanding of the overall potential at Amayapampa.

Dr King has also made some preliminary findings available to the Company. The principal finding relates to the structural setting at Amayapampa, with two major bounding faults on the east and west side of the current deposit producing a 1-kilometre wide zone, which are extremely positive for the discovery of much larger and separate deposits on either of these bounding faults. Dr King has also indicated that the existing deposit has good potential for extension to the north and some potential for extension at depth. The intersection of two faults truncates the deposit to the south.

### **Cut-Off Grade Analysis**

As announced in the December 2009 Quarterly Report, Gekko Systems recently completed a scoping study on the proposed treatment plant. Gekko Systems sourced treatment plant operating costs from the Company's Bolivian staff which indicated that at the current gold price a cut-off grade of 0.3 g/t Au is appropriate for the mineral resource and future ore reserve. However, Republic determined it prudent to incorporate a cut-off grade of 0.4 g/t Au which has been used for the new mineral resource estimate.

The Company's electrical engineering consultant in Bolivia has indicated that the electricity price used in the Gekko scoping study of US\$0.06/kWh has the potential for considerable reduction once negotiations with power supply entities in Bolivia are progressed by the consultant.

### **Treatment Plant Site**

Sterilisation sampling has commenced on the site chosen for the treatment plant.

### **Implications of the New Geological Block Model for Mine Planning and Scheduling**

The new geological block model has reinforced the Company's confidence in some very deep and high grade analysis results. Previously these had been eliminated from the mineral resource estimate. The inclusion of these results offers the potential to lead to a deeper open pit scenario. The new geological block model has improved the confidence levels of mineralisation along various margins of the model, meaning that these zones can now be taken into account in ore reserve calculations.

Internal Company pit optimisation studies using the previous geological block model indicated that at a gold price of US\$825 per ounce accounting for previously estimated but lower metallurgical recoveries, that a substantial portion of the old mineral resource of 1,084,000 ounces had the potential to be mined. The significant increase in the Measured and Indicated mineral resource to 990,000 ounces, higher metallurgical recoveries due to recently completed testwork and the higher gold price regime, bodes very well as the Company advances towards a significant ore reserve estimate at Amayapampa.

Yours faithfully



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**Table 1**

**Amayapampa Mineral Resource Statement**

	MEASURED		INDICATED		INFERRED		TOTAL		
	TONNES	GRADE	TONNES	GRADE	TONNES	GRADE	TONNES	GRADE	GOLD
	('000)	Au g/t	('000)	Au g/t	('000)	Au g/t	('000)	Au g/t	Ounces
AMAYAPAMPA RESOURCE <sup>1,2</sup>	4,360	1.6	22,800	1.0	8,230	1.1	35,390	1.1	1,294,000

**Notes Accompanying The Mineral Resources Statement**

<sup>1</sup> Figures are Republic's equity share of this project, being 100% of Amayapampa.

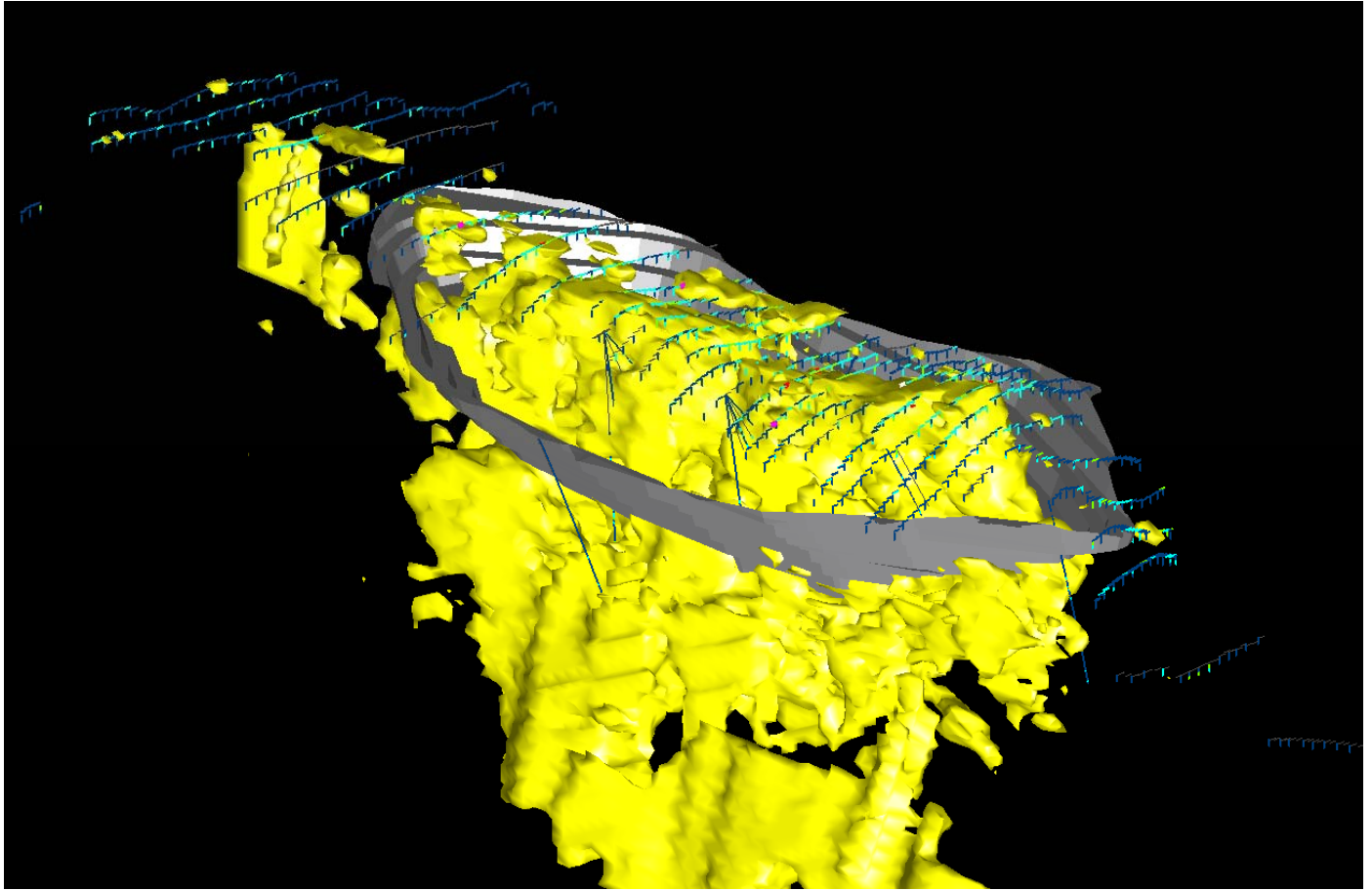
<sup>2</sup> For the Amayapampa resources, allowances have been made for depletion by estimated mining amounts for the predominantly underground historic workings. Resources may not sum to equal totals due to rounding.

Location	Grade Interpolation Method	Section Spacing Metres	COG* g/t Au Oxide	COG* g/t Au Sulphide	Oxide Density	Sulphide Density
Old Amayapampa Resource <sup>1</sup>	Ordinary Kriging	10 to 50	0.6	0.6	2.4	2.75
New Amayapampa Resource <sup>1</sup>	Ordinary Kriging	10 to 50	0.4	0.4	2.4	2.75

A top cut of 15.5 g/t Au was applied to the old Amayapampa model. Top cuts in the new model are 20 g/t Au for primary mineralisation, 10 g/t Au in transitional mineralisation and 5 g/t Au in oxide mineralisation. \* COG is cut-off grade

**JORC Compliance Statement**

Information in this report that relates to the Amayapampa Mineral Resources for Republic Gold Limited is based on information estimated by Kerrin Allwood, Republic Gold's Independent Resource Consultant and a member of the Australasian Institute of Mining and Metallurgy. It is also based on information from Neb Zurkic Republic Gold's Technical Director, a member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Kerrin Allwood and Neb Zurkic have a minimum of five years experience in the estimation, assessment and evaluation of Mineral Resources and Ore Reserves. Kerrin Allwood and Neb Zurkic have significant experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Kerrin Allwood and Neb Zurkic consent to the inclusion in this report of these matters based on the information in the form and context in which it appears.



**FIGURE 1**

**Perspective View (Looking NE From Above) of the Previously Designed Open Pit with the New Model (1 g/t Au Shell) and Sampling Added by the Company Over the Past 18 months. The Open Pit Will be Re-optimised on the Now Larger and Higher Confidence Mineral Resource.**





**FIGURE 2**

**Part of the Amayapampa Geological Crew Performing Trench Sampling That Was So Vital to the Mineral Resource Upgrade**