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## Initial JORC Compliant 2.1 Million Ounce Gold Equivalent Resource -Mt Kare Gold/Silver Deposit, PNG

Indochine Mining Limited (ASX:IDC) announces its initial JORC-compliant Mineral Resource Statement for the Mt Kare Gold/Silver Deposit within EL1093, in the highlands of Papua New Guinea (PNG). This Statement achieves a major milestone for the company on the Mt Kare deposit.

The total Indicated and Inferred Mineral Resources as at December 2011 are estimated as 28.3 million tonnes at 1.9 grams per tonne of gold (g/t Au) and 22.5 g/t silver (Ag) containing **1.76 million ounces of gold** and 20.40 million ounces of silver or a grade of 2.3 g/t gold equivalent (AuEq) for 2.13 million ounces of gold equivalent at a 0.5 g/t gold cutoff grade (Table 1).

The new Resource Statement has confirmed the previously estimated size and tenor of gold/silver mineralisation at Mt Kare, contained in Snowden's Canadian NI 43-101 resource estimate.

## Mineral Resource Statement, Mt Kare Gold/Silver Project, December 2011

Cut-off Gold Grade(1)	Resource Classification	Tonnes	Gold		Silver		Gold Equivalent AuEq (Au+Ag)(4)	
			Grade	Contained Metal	Grade	Contained Metal	Grade	Contained Metal
(g/t Au)	(JORC 2004)	(Million t)	(g/t Au)	('000 oz Au)	(g/t Ag)	('000 oz Ag)	(g/t AuEq)	('000 oz AuEq)
0.5	Indicated	5.90	3.7	700	30.0	5,680	4.3	810
	Inferred	22.40	1.5	1,060	20.5	14,720	1.9	1,330
	Total	28.30	1.9	1,760	22.5	20,400	2.3	2,130

Table 1: Mineral Resource Statement, Mt Kare Gold/Silver Project, December 2011

Notes

1) Cut-off grades: Nominal lower gold grade cuts are applied, and due to the nature of the deposit also approximate the geological mineralisation cut-off.

2) Material classified as Indicated Resources are within shells interpreted from the 2011 block model that define high grade Au mineralisation (+2g/t Au) which is close to surface. It is considered that material within these volumes have a high probability of being economically extracted, with the data risks considered.

3) Rounded estimates are used, which may cause apparent discrepancies in totals. Significant figures do not imply precision. 4) Gold equivalent grades (AuEq) are calculated based on a gold price of US\$1200/oz and a silver price of US\$22/oz, or 54.55 silver ounces per 1 gold ounce.

The 2011 Mt Kare Resource Statement follows the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code, 2004 Edition, and updates an earlier estimate prepared by Snowden Mining Industry Consultants under Canadian National

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Instrument NI 43-101 in August 2007\*. This previous publicly reported Foreign Resource Statement was released in March 2011 under a waiver to ASX Listing Rule 5.6. The 2007 Foreign Resource Statement reported combined Indicated and Inferred Resources of 1.7 million ounces of gold in 24.5 million tonnes at 2.1 grams per tonne gold and 15 grams/tonne silver, or 1.9 million ounces of gold equivalent, at a 1 g/t gold-equivalent lower cut-off grade.

For comparison purposes, a report was generated from the new resource model using the same 1 g/t gold-equivalent lower cut-off grade, which produced combined Indicated and Inferred Resources of 1.7 million ounces of gold in 23.8 million tonnes at 2.2 grams per tonne gold and 26.4 grams/tonne silver, or 2.0 million ounces of gold equivalent.

The 2011 Resource Estimate is based on information as of August 2011, with the last drillhole data added in 2007. A total of 365 holes are included in the new estimate, including 25 holes not utilised in the 2007 estimate. All holes were drilled by previous owners and explorers over an 18 year period and the drill pattern now approximates a 30m x 30m grid pattern. The assay data, geological logging and interpretations from previous workers were used to generate a new resource model. This more robust approach to the modelling process resulted in higher grades and slightly less tonnes. Total combined resources in the new resource statement increase in comparison to the Foreign Resource.

The new Resource Estimate is classified on data density, data quality, and confidence in the geological interpretation and grade interpolation, which has led to a reduction in the amount of material classified as Indicated Mineral Resources when compared to the 2007 estimate. Approximately one third of the inferred material (containing 300-350,000 ounces gold) has been identified as adequately drilled to be considered in the Indicated category. It is expected that ongoing data validation and additional data collection already underway, will improve understanding and alleviate the risk related to confidence in aspects of the data quality. An improvement in the classification may be achieved with new data.

Mineral Resources, under Canadian National Instrument NI 43-101, were prepared by Mr Robert Sim of Longview Technical Group. Ms. Lynn Olssen MAUSIMM (CP), Senior Consultant and full time employee of Snowden approved the resource estimation, the resources estimation procedure and QAQC data. Lynn Olssen is a Qualified Person as defined by NI43-101. The resources have been tabulated for a gold equivalent grade (AuEq) of 54.55 silver ounces per 1 gold ounce, based on a gold price of US\$300/oz and a silver price of US\$5.50/oz.

## **Geological Model**

Gold and silver mineralisation is located in structurally controlled settings hosted in folded Oligocene calcareous sandstones and siltstones which are thrust faulted against older mudstones to the west and faulted against limestone to the east. The structural setting forms part of a broad north-east striking transfer fault zone which extends through to the Porgera deposit, 15km to the north-east.

Two stages of gold and silver mineralisation are identified:

Stage 1 mineralisation: Sulphide-rich, northerly striking, steeply dipping veins formed in extensional fractures adjacent to controlling structures;

Stage 2 mineralisation: Localised Quartz-Pyrite-Roscoelite veins overprinting stage 1 veins.

<sup>\*</sup> The Resource Statement is extracted from the original report titled "Buffalo Gold Limited: Mt Kare Technical Report Update, August 2007 (NI43-101, Snowden)" available publicly on <u>www.SEDAR.com</u>. A waiver was provided by the ASX for release by Indochine Mining Limited on 4 March 2011.



Five bodies (or domains) of mineralisation are recognised and modelled separately for grade interpolation:

- The Western Roscoelite Zone (WRZ): predominantly quartz-roscoelite mineralisation, located along a major north striking fault, crosscut by north-west striking thrusts, which contains 52% of the interpolated mineralisation.
- The Black Zone (BZ): this mineralisation is located on the faulted contact with limestone and contains 12% of the interpolated mineralisation.
- The C9 Zone (C9): this mineralisation occurs in a pipe-like sub-vertical breccia and is located between the WRZ and BZ and contains 15% of the interpolated mineralisation.
- The Central Zone (CZ): this mineralisation appears to be focussed at the intersection of a significant N-S and NNE striking structures, but is less well drilled and contains 4% of the interpolated mineralisation.
- The Upper Zone (Upper): this mineralisation occurs above the recognised fresh mineralised zones with confidence in the zone affected by past surface workings; it contains 16% of the interpolated mineralisation at Mt Kare.

The mineralisation is modelled over an area of 650m x 1000m to a depth of 350m (Figure 1 &2) and is open at depth in the C9 Zone and at depth and along strike in the Central Zone. Potential exists for "blind" faulted blocks of mineralisation associated with the WRZ and associated with repetitions of the structural setting on faulted offsets along strike and at depth.



**Figure 1:** 3-D view of the Geological Resource Model with four bodies of mineralisation as they appear in outcrop: WRZ – Western Roscoelite Zone; C9 - C9 Zone; CZ – Central Zone; BZ – Black Zone.

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*Figure 2:* 3-D view of the Geological Resource Model without topography showing the four bodies (or domains) of mineralisation: WRZ – Western Roscoelite Zone; C9 - C9 Zone; CZ – Central Zone; BZ – Black Zone.

The Mt Kare Resource Statement, November 2011, (Hackman & Associates) was the basis for this public release and is available from Indochine Mining Limited by shareholder request.

## Stephen Promnitz Chief Executive Officer Indochine Mining Limited

### **Competent Persons Statement**

The information in this report (statement) that relates to the November 2011 Mineral Resources is based on information compiled by the following competent persons and reported to Indochine Mining Limited on the 15<sup>th</sup> December 2011 in "Mt Kare Resource Statement: November, 2011":

Duncan Hackman, who is the principal of Hackman & Associates Pty Ltd and a member of the Australian Institute of Geoscientists (AIG); David Meade, who is a a full time employee of the Indochine Group (Indochine Resources (Cambodia) Ltd) and a member of the Australian Institute of Geoscientists (AIG); Bosta Pratama, who is an employee of the Quantitative Group and a member of the Australasian Institute of Mining and Metallurgy (AusIMM); and Saut Simbolon, who is an employee of the Quantitative Group and a member of the Australasian Institute of Mining and Metallurgy (AusIMM).

Duncan Hackman, David Meade, Bosta Pratama and Saut Simbolon have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code, 2004). The competent persons consent to the inclusion in the statement of the matters based on their information (and for the public reporting of these statements) in the form and context in which it appears.

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#### Appendix: Key Points - 2011 Mt Kare Resource Estimate

Key points from the Resource estimation data and methodology used, listing material matters that affect the reliability or confidence in determining the Resources stated in Table 1.

- A total of 365 PQ, HQ and NQ Diamond resource-delineation drill holes have been drilled in a predominantly 30mX30m grid pattern at Mt Kare. 80% of holes are drilled east-westerly, sub-perpendicular to the overall mineralisation trend, 15% are sub-vertical and 5% are drilled at other orientations. Holes drilled at other orientations show lower tenor of Au and Ag mineralisation which may be due to local grade distribution for areas tested by these holes. The mineralisation is open at depth in the C9 Zone and at depth and along strike in the Central Zone.
- 2. Drilling of the deposit was conducted by three parties, in five main drilling campaigns, over an 18 year period. 80% of holes have accurately surveyed collar locations. 20% of hole traces can be determined from 100m spaced down hole survey data and 15% by 50m spaced data. The remaining hole traces are determined by collar set-up data. The average overall drill core recovery is measured at 92%. The preferential loss of clay-sulphide material within mineralised core has not been measured. 10% of sampling was conducted utilising nominal 2m intervals, 49% at 1.5m intervals with the remainder 41% utilising 1m primary intervals. 73% of ½ core samples were crushed and split to 250g before pulverising with the remainder being crushed and split to 1000g before pulverising. All samples were assayed for Au (fire assay) and Ag, Cu, Pb, Zn, As.

Drilling at Mt Kare was undertaken in the following campaigns:

- CRA (1989, 1990): 32 holes, 8609m sampled (4228 samples at nominal 2m intervals).
- Madison (1996 to 1999): 171 holes, 28431m sampled (18976 samples at nominal 1.5m intervals
- Madison (2000): 74 holes, 8476m sampled (7858 samples at nominal 1m intervals).
- Madison (2003): 6 holes, 1209m sampled (1208 samples at nominal 1m intervals).
- Buffalo Gold (2006, 2007): 88 holes, 13372m sampled (11932 samples at nominal 1m intervals).
- 3. Client and Laboratory assay quality control data was supplied for the last 27% of the samples analysed. Limited data indicates that variance attributed to the 1000g crusher split sub-sampling process is within acceptable limits. Check sampling indicates high variance associated with the 250g crusher split sub-sampling procedure. The available laboratory blanks and standards show no issues relating to the last 27% of samples. There are no client blanks to assess contamination issues. The client submitted standards show periods of significant relative bias and deterioration in precision in this dataset.
- 4. Specific gravity measurements were undertaken on 2281, 10cm samples from mineralised core intervals. It appears that these samples have been preferentially taken from competent non-clay or clay-poor segments of core and may not be representative of the material within the mineralised domains. A straight immersion method was utilised for determining the sample volume, which in clayey samples will introduce a positive bias to dry bulk density measurements as the sample becomes saturated during the measuring process. The representivity and unknown quality of the specific gravity data underpinning the tonnage factors applied to the model is a significant risk and is reflected in the resource classification.
- 5. The mineralisation was modelled following the controls outlined in the description of the geological model (above) and utilised a statistically and visually consistent cut-off grade of 0.2g/t Au which defines the hard boundary for grade interpolation. The lower extent of the Upper Zone was modelled at the base of the logged overburden. There is no apparent relationship between Au grade and oxidation state. Ordinary Kriged Au, Ag, Cu and As grades were estimated into a sub-blocked model (max block size of 15x15x15m) rotated to align with the dominant drilling direction. High grade cuts and restrictions were applied to the 2.5m composites generated to inform the model. Search orientations and sample selection criteria were designed to best fit the different geometries and drilling configurations within deposit. The average specific gravity values of 2.2g/cc, 2.4g/cc and 2.6g/cc were assigned to each of the oxidised, transitional and fresh domains within the model (respectively).



- 6. The model was classified according to the guidelines outlined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 Edition). Data and information relating to the confidence that can be attributed to each input dataset was either not available or of limited coverage or fertility for this estimate. The unknown quality of the assay and specific gravity (dry bulk density), the representivity of the specific gravity data and the unknown extent and effect of preferential core loss are the significant factors when considering resource classification. Four areas of higher grade mineralisation that are adequately drilled have been classified as Indicated based on the JORC code guideline that, at gold prices of greater than US\$1500/oz., "any variation from the estimate would be unlikely to significantly affect potential economic viability". These areas are also likely to have higher dry bulk densities (reflecting that in the current dataset) as they are expected have a higher sulphide-quartz/clay ratio than that within the lower grade areas. All other areas have been assigned the inferred classification following the guidelines that "caution should be exercised if this category is considered in technical and economic studies". 30% of the Inferred resource is adequately drilled to be considered for higher classification when data issues are better understood, however significant (relative) adjustments to the grade and/or tonnes in future estimates is a likely outcome of any data robustness process.
- 7. Stuart Masters of CS2 Pty Ltd performed an external review of the estimation methodologies, parameters and processes. He considered them to be appropriate.