

14 June 2016

Siana Gold Project: Underground Mine Approved for Development Following Completion of Positive Updated Feasibility Study

Economic and technical outcomes support plan to extend Siana mine life well beyond current open pit

Key Points

Siana Underground

- Updated Feasibility Study completed by independent consultants Mining One Pty Ltd.
- Results from the Feasibility Study indicate that there is a financially and technically viable underground project based on a JORC 2012 compliant Ore Reserve.
- Maiden JORC 2012 Underground Ore Reserve comprises 3.01 Mt at 4.1 g/t Au for 396,000 oz of contained gold.
- The Feasibility Study also considered a long-term mine plan based on the whole underground resource (Measured, Indicated and Inferred material).
- Key Feasibility Study outcomes for the long-term mine plan include:
 - Average annual forecast recovered gold production of ~60,000 oz per annum over an 8-year production mine life
 - Forecast life-of-mine all-in sustaining costs (AISC) of US\$930-US\$980 per ounce
 - Forecast pre-tax NPV of US\$50M, assuming a US\$1,200/oz gold price and 10% discount rate
 - Forecast pre-tax IRR of 22%
 - Pre-production capital cost estimate of US\$60M
- Based on the positive outcomes of the updated Feasibility Study the Siana underground mine has been approved for development and is scheduled to commence in the second half of 2016.

Cautionary Statements

A component of the resources underpinning the production target is classified as inferred mineral resources. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

The Group is satisfied that it has reasonable grounds for reporting a production target that is based on ore reserves as well as inferred mineral resources because the proportion of production attributable to inferred mineral resources is not the determining factor in the project viability. The majority of the Inferred mineral resource that features in the long term mine plan has been scheduled in the last half of the mine life.

Siana Open Pit Update

- Continued strong open pit performance with production of 12,145 ounces for April and May 2016.
- Siana open pit on track to achieve the upper end of FY2015-16 guidance of 57,000 to 60,000 ounces.
- Open pit production for FY2016-17 forecast at 72,000 to 80,000 ounces at an AISC in the range of US\$740 to US\$780/oz.
- Reducing operating cost profile reflects an expected significant reduction in the waste-to-ore ratio in the open pit from ~8:1 currently to ~3:1 from July 2016 onwards.

Red 5 Limited

ABN 73 068 647 610

ASX: **RED**Shares on issue: **761.9M**Level 2, 35 Ventnor Avenue West Perth 6005 Western Australia **Tel:** (+61) 8 9322 4455 **Fax:** (+61) 8 9481 5950**Web:** www.red5limited.com **Investor enquiries:** info@red5limited.com

Management Comment

- “This is a great result for the Red 5 Group, with the successful update of the Underground Feasibility Study marking a significant milestone for the Siana operation. This demonstrates that the proposed Siana underground development is an economically robust project that will significantly extend the life of the Siana operation well beyond the current open pit operation with an initial mine plan based on the extraction of 504,000oz of gold over a 9-year mine life including development.” – Red 5 Managing Director, Mark Williams

Feasibility Study Assumptions and Qualifying Remarks

The factual basis and thus reasonableness of all key assumptions is detailed in the Feasibility Study report. The key cost assumptions made in the Feasibility Study were based on either recently updated cost data or quotes from suppliers or pricing already received on site. A gold price of US\$1,200 per ounce was used and is consistent with current market trends and independent expert guidance. Productivity assumptions were based on equipment specifications and methods outlined in the relevant handbook and checked against what has been achieved at similar mines.

The results from the Feasibility Study indicate that there is an economic case for mining the Siana underground resource on the basis of the reserve estimate alone.

OVERVIEW

Red 5 Limited (ASX: RED) is pleased to advise that an updated Feasibility Study has been completed by independent consultants Mining One Pty Ltd (Mining One) for the proposed underground mine development at the Siana Gold Project in the Philippines. The results confirm a technically viable project with robust economic outcomes which has the potential to significantly extend the life of the operation well beyond the current open pit.

The Feasibility Study includes a maiden Ore Reserve estimate for the Siana Underground of 3.01 Mt @ 4.1 g/t gold, underpinning the proposed development of an underground mine directly below the existing open pit to extract 0.5 million tonnes of ore per annum for processing through the existing Siana mill (refer to Underground Reserve table below).

Siana JORC 2012 Underground Reserve Estimate as at June 2016							
Estimate	Classification	Cut Off Au (g/t)	Tonnes (Mt)	Au g/t	Ag g/t	Contained Au (koz)	Contained Ag (koz)
June 2016 JORC 2012	Probable	2.4	3.01	4.1	6.7	396	644
	Total	2.4	3.01	4.1	6.7	396	644

Notes on the Reserve

1. Discrepancy in summation may occur due to rounding.
2. Reserves have been reported below the Stage 4 Final Pit (-130m level).
3. A cut-off grade of 2.4 g/t Au has been applied.
4. For grade estimation, the updated Siana underground resource has been constrained based on the geological interpretation which coincides with a nominal 1.0 g/t Au threshold grade. Zones of internal waste within some zones graded less than 1.0 g/t Au over a nominal two metres length and were interpreted and estimated separately.

Based on the long term mine plan that considers the whole resource (Measured, Indicated and Inferred) the Siana Underground operation is forecast to produce on average **~60,000 ounces per annum** over an 8-year production mine life. The projected cash operating cost (C1) range is between US\$700-US\$750 per ounce, and all-in sustaining costs (AISC) are forecast to be between US\$930-US\$950 per ounce.

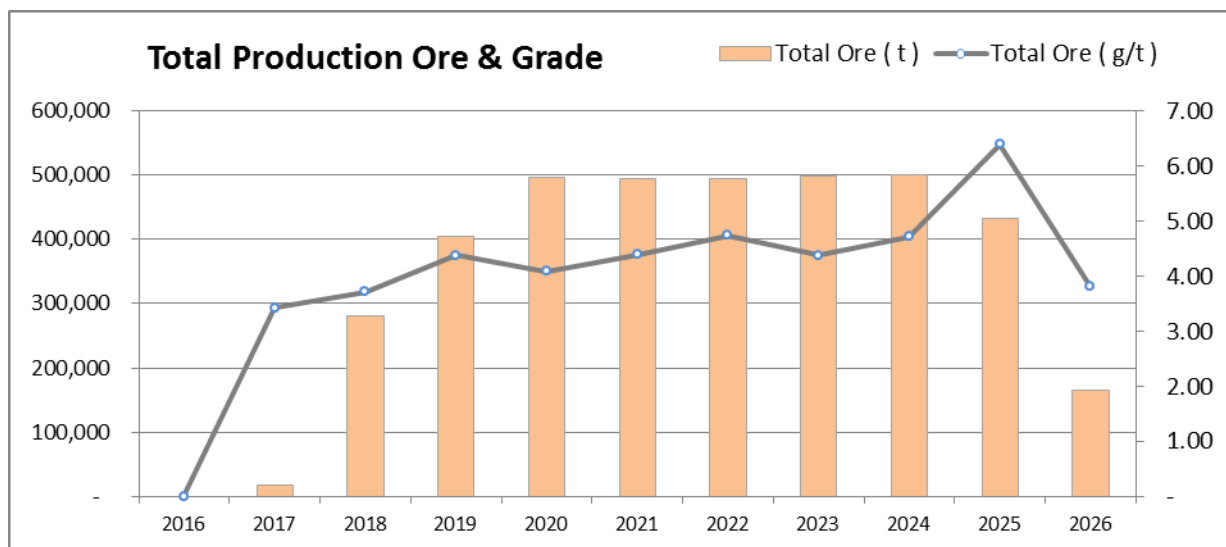
It should be noted that under the current long term mine plan 77% of the gold produced will be sourced from material classified as Indicated in the resource model with the remaining 23% sourced from Inferred material. There is no material classified as Measured in the current underground resource model. 79% of the forecast gold production in the long term mine plan is based on Probable Reserves; there is no Proven portion to the reserve estimate. No portion of the total gold production under the long term mine plan is based on exploration targets or foreign estimates.

The estimated ore reserves and/or mineral resources underpinning the production target of the total gold production have been prepared by competent persons in accordance with the requirements of the JORC Code, 2012 Edition.

There is considerable potential to extend the mine life through resource extension and further exploration of near-mine targets.

The forecast project Net Present Value (NPV_{@10%}, Pre-Tax) for the long term mine plan at an estimated gold price of US\$1,200 over an 8-year production mine life is US\$50 million with an IRR of 22%. The pre-production capital cost for the underground mine development (including infrastructure, paste plant and development) is estimated at US\$60 million.

The robust economics and the capital cost estimate for the underground mine development make this an attractive growth opportunity for the Red 5 Group. The positive results from the Feasibility Study paves the way for the commencement of underground mine development, with a projected 12-month timeline to access first underground ore.



The Group believes that it will be able to fund the underground mine development at Siana by utilising the cash-flow generated by the existing open pit operation over the next 18 months as well as being able to accelerate initial underground development through a short-term loan facility provided by Philippines bank Metropolitan Bank & Trust Company (Metrobank) (see below for further details of this facility). This will enable the operation to transition to underground mining following the completion of the open pit by the end of calendar year 2017.

Opportunities also exist during the underground operating phase of the project for additional ore feed to be potentially sourced from the nearby Mapawa Project or existing near-mine prospects. This would have the potential to generate further economic returns from the project.

OPEN PIT UPDATE AND FY2016-17 GUIDANCE

The strong operational performance of the Siana Gold Project has continued with 12,145 ounces of gold recovered for the months of April and May 2016, from processing 126,711 tonnes of ore at an estimated 86% recovery.

The Group is on track to achieve production guidance for the June 2016 Quarter of 16,000-19,000 ounces and expects production for the full 2015-16 financial year to be at the upper end of its previously announced guidance range of 57,000-60,000 ounces.

Following completion of the annual work plan and budget for the 2016-17 financial year, Red 5 has updated its production guidance for the year ending 30 June 2017 to 72,000 to 80,000 ounces at a forecast all-in sustaining cost (AISC) in the range of US\$740 to US\$780 per ounce.

The reducing cost profile for the open pit operation reflects a reduction in the forecast waste-to-ore-ratio in the Siana open pit as the open pit progresses through Stages 3 and 4. The strip ratio is currently ~8:1 and is projected to fall to ~3:1 from July 2016 onwards. The reduction in all-in sustaining costs should result in strong cash-flow generation for the remainder of the open pit operation, which can be utilised to fund the proposed underground development.

Gold sales of ~14,000 ounces for April and May 2016 amounted to US\$17.5 million and the current Group cash balance is A\$13 million. Current ore stockpiles are estimated at ~136,000 tonnes at a grade of 1.35 g/t Au.

Greenstone Resources Corporation (GRC), the Red 5 Group associated entity operating in the Philippines, has secured a short-term loan facility of 300 million Philippine pesos (approximately A\$8.8 million) from leading Philippines bank, Metropolitan Bank & Trust Company (Metrobank), which is available to accelerate early development of the Siana underground operation.

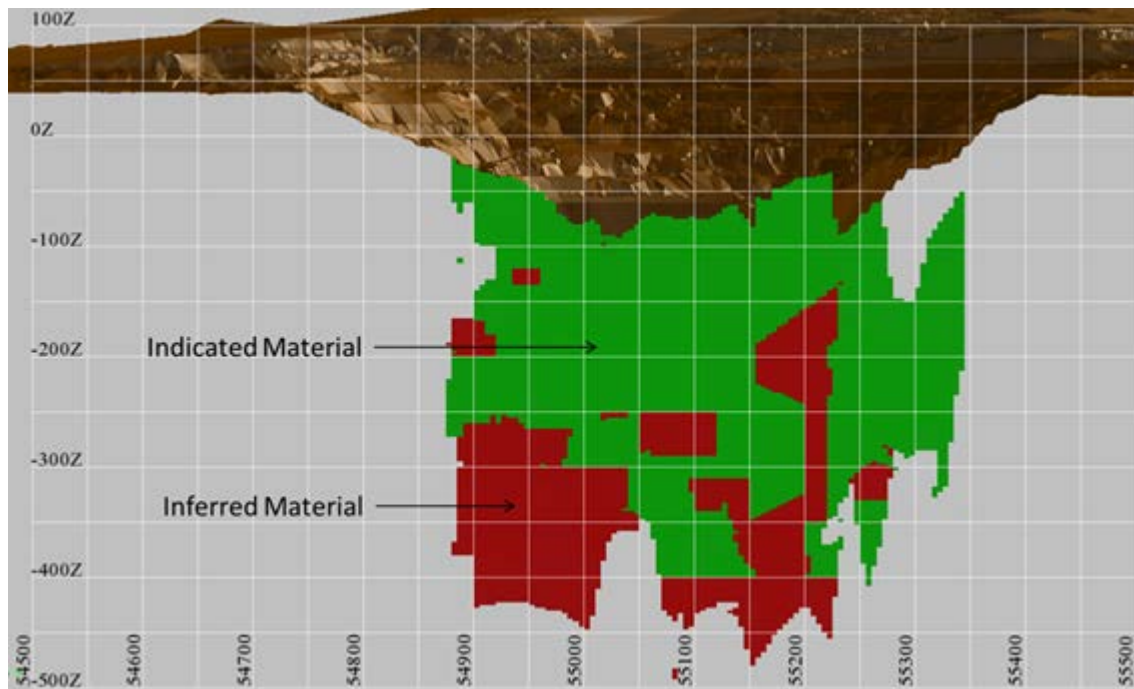
The facility is for a period of four months commencing from date of draw-down and is secured against plant and equipment. Interest is payable each month in arrears and is currently estimated to be between 6% and 8%. A Standby Letter of Credit Line facility of a further 100 million Philippine pesos is also available from Metrobank. GRC will investigate the opportunity to seek a renewal of the facility once the initial four months has passed.

UNDERGROUND FEASIBILITY STUDY

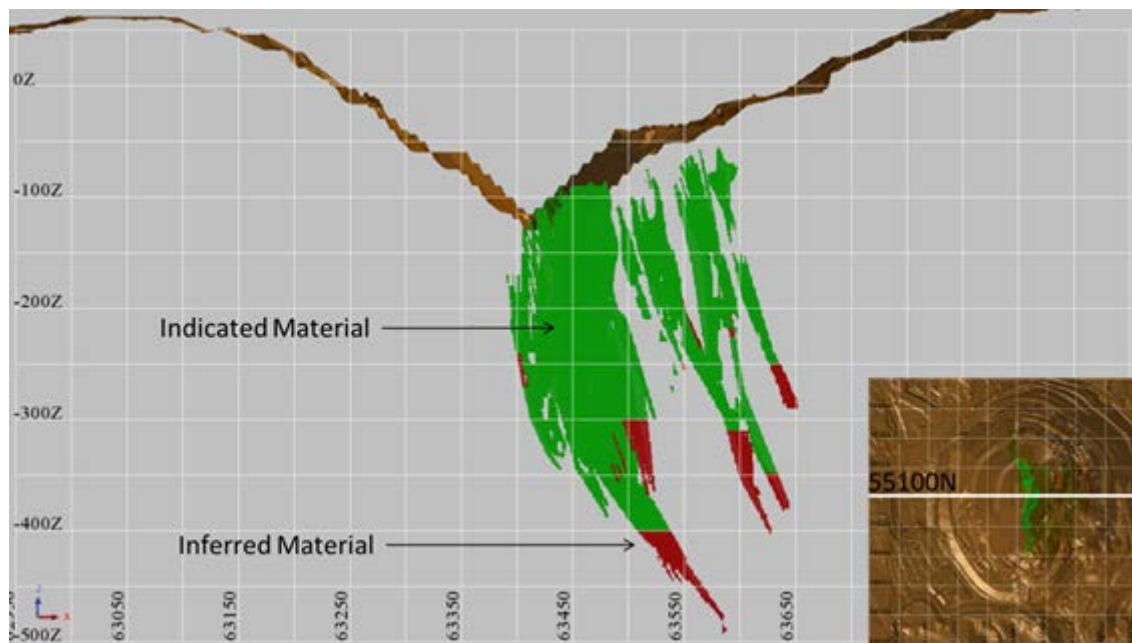
Long-Term Mine Plan

The Feasibility Study considered the technical and economic viability of mining the whole resource beneath the final pit design as it is currently understood. This included the assessment of resource material classified as both Indicated and Inferred (there is no material classified as Measured). The motivation for this approach is that the Inferred material only makes up a small proportion of the total ore inventory (10%) and is likely to be converted to Indicated material on the basis of the proposed grade control drilling program. A representative long section and cross-section is provided below to provide some indication where the Inferred material is located. The majority of this material has been scheduled to be mined in the last half of the mine life.

The forecast project mine production plan is for 8 years mining some 3.8Mt at a head grade of 4.6 g/t gold equivalent for a total of 504,000 ounces of recovered gold.



Long-section of the resource model above 1.0g/t Au equivalent.



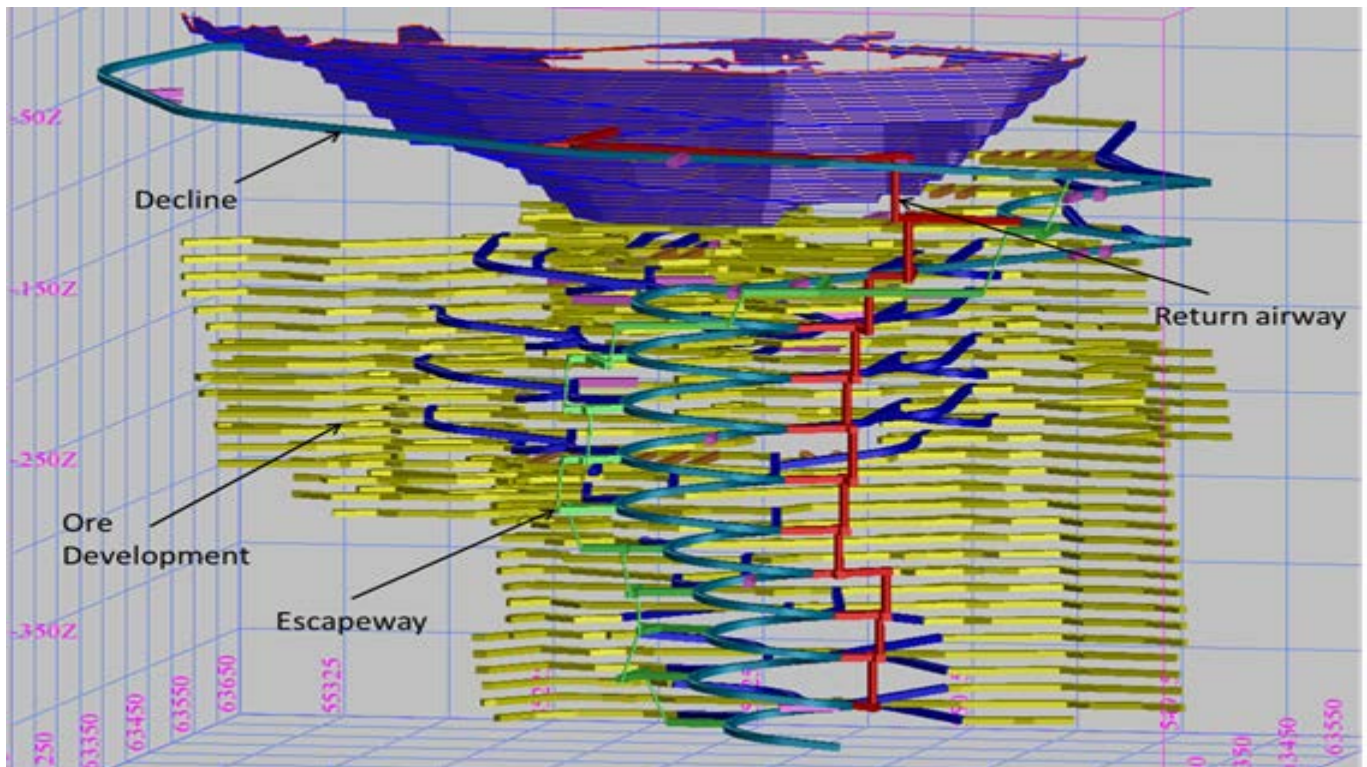
Cross-section at 55100N

Mining Methods

Mining One has undertaken a detailed review of the mining methods adopted in previous studies. The updated mine plan is based on the use of a conservative short up-hole retreat mining method with cemented paste-fill for the majority of the orebody.

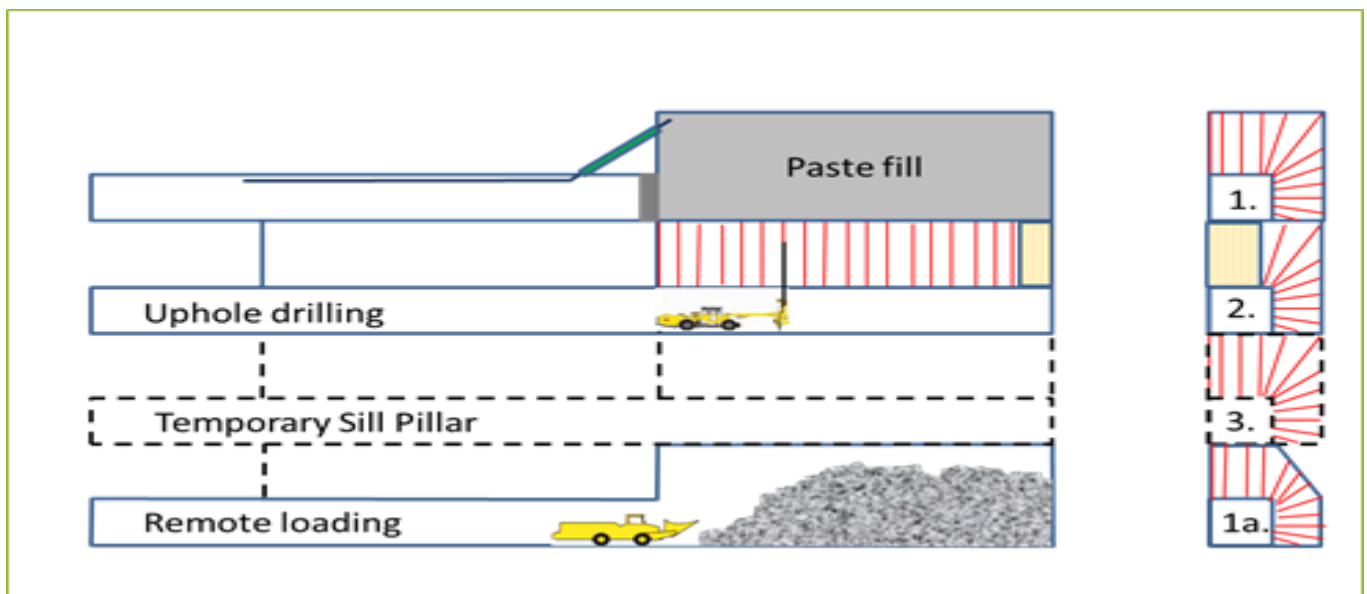
A geotechnical assessment of the proposed mining method and tunnel development was also conducted as part of the Feasibility Study. In the context of the Siana ore body, Mining One believes that there are significant advantages in the up-hole retreat mining method using conventional jumbo drill and blast for tunnel development and stoping.

A key to the success of the project will be managing geotechnical and hydrogeological issues. As such a detailed development design with multiple level access and short level spacing has been produced that will allow for control of the mining front while also providing scheduling flexibility. An isometric view of the mining front is provided below.



Isometric view of ore development

The principal mining method proposed for the underground operation is uphole stoping with cemented paste. This is a proven and productive mining method. Given the ground conditions a small level spacing (10m) has been used. This will allow for better control of the mining voids and drilling and blasting. The use of cemented fill means mining can be conducted on several levels. A schematic illustration of the mining method is provided below.



Schematic illustration of the proposed mining method

Processing

Ore from the Siana underground operation will be processed at the existing 1.1Mtpa gravity and carbon-in-leach (CIL) processing facility located at Siana.

Pre-production capital costs

The total pre-production capital costs for the underground project have been estimated at US\$60 million. The capital expenditure estimate for the Feasibility Study predominantly relates to construction of a paste plant, infrastructure and underground development.

Operating cash costs

The estimated C1 operating cash costs plus royalties over the life-of-mine (LOM) are US\$700-US\$750 per ounce. The life-of-mine all-in sustaining cost (AISC) is forecast at US\$930-US\$980 per ounce. The costs have been based on quotes from various suppliers and costs already received on site. Mining cost estimates have been validated with estimates from several underground mining contract specialists.

Pricing assumptions

For the purposes of the Feasibility Study, the Group has adopted a gold price of US\$1,200 per ounce over the life of the project. The Group believes that this pricing profile is appropriate and Mining One considers that it is consistent with market trends and long term pricing projections from independent sources.

Financial evaluation

A summary of key parameters from the financial model used in the Feasibility Study is outlined in the following table:

Summary of Key Parameters from Underground Feasibility Study Financial Model		
Life of Mine (LOM) including development	Years	9
LOM Ore Mined	Mt	3.8
Maximum Plant Feed Rate	Mtpa	1.1
Average Gold Head Grade	g/t	4.6
Average Gold Recovery	%	90
Average Forecast Gold Price	US\$/oz	1,200
Forecast FX Rate	AUD:USD	0.72
Initial Capital Cost	US\$M	60
Average LOM Operating Cost	US\$/oz	700-750
Ave AISC Costs	US\$/oz	930-980
NPV (10% Discount Rate, Pre-Tax)	US\$M	50
IRR	%	22

LONG TERM TAILINGS STORAGE FACILITY

Planning and implementation for the long term tailings storage facility continues to progress well. Concept designs have been completed by Knight Piésold on the preferred location. Sterilisation drilling and geotechnical assessments have also been finalised. International consultants AECOM have continued to advance the required statutory Environmental Performance Report and Management Plan with two important activities of the Public Scoping and Technical Conference being completed during the past two months.

SUMMARY AND MANAGEMENT COMMENT

Commenting on the results of the Underground Feasibility Study and open pit update, Red 5's Managing Director, Mr Mark Williams, said: "This is a great result for the Group, with the successful update of the Underground Feasibility Study marking a significant milestone for the Siana operation. This demonstrates that the proposed Siana underground development is an economically robust project that will significantly extend the life of the

Siana operation well beyond the current open pit operation with an initial mine plan based on the extraction of 504,000oz of gold over an 8-year production mine life.”

“Importantly, the technical fundamentals and financial returns of the project are underpinned by a capital cost estimate which the Group will aim to fund from internal cash-flow from the open pit mine.”

“Against this backdrop, it is pleasing to see that the strong performance of the open pit mine is continuing with production on track to achieve the upper end of our guidance range for FY2015-16. We have also updated production guidance for FY2016-17, with all-in sustaining costs projected to fall as the strip ratio of the latter stages of the open pit reduces significantly from current levels.”

“The growing cash-flows generated by the open pit should provide strong momentum as we move ahead with the underground mine and put in place the foundations for what we believe will be a long and successful future for the Siana operation.”

RESERVE ESTIMATE

As part of the underground Feasibility Study, Mining One has completed a maiden Ore Reserve estimate for the Siana underground deposit. The assessment considered the parts of the resource classified as indicated (there are no parts of the resource classified as measured). Some diluting material contained inferred and unclassified material.

A summary of the Ore Reserve estimate is provided below, with full details provided in Appendix 1.

Siana JORC 2012 Underground Reserve Estimate as at June 2016							
Estimate	Classification	Cut Off Au (g/t)	Tonnes (Mt)	Au g/t	Ag g/t	Contained Au (koz)	Contained Ag (koz)
June 2016 JORC 2012	Probable	2.4	3.01	4.1	6.7	396	644
	Total	2.4	3.01	4.1	6.7	396	644

Notes on the Reserve

1. Discrepancy in summation may occur due to rounding.
2. Reserves have been reported below the Stage 4 Final Pit (-130m level).
3. A cut-off grade of 2.4 g/t Au has been applied.
4. For grade estimation, the updated Siana underground resource has been constrained based on the geological interpretation which coincides with a nominal 1.0 g/t Au threshold grade. Zones of internal waste within some zones graded less than 1.0 g/t Au over a nominal two metres length and were interpreted and estimated separately.

JORC 2012 Maiden Ore Reserve Summary for the Siana Underground

Material Assumptions, Outcomes from Feasibility Study and Economic Assumptions

The material assumptions used for the Reserve estimate were the same as those for the long term mine plan (provided above and detailed in the Feasibility Study report). As there is not a significant difference in the ore inventory between the long term mine plan and the reserve, adjustment to the productivity assumptions and mining methods was not required. The nature and location of the indicated material meant that the same capital mine design could be used. For more detail the reader is directed to JORC code Table 1 below.

Criteria Used for Classification

Typically inferred material is adjacent to material classified as indicated in the resource model. As a result, the scheduled mining of some of the indicated material included some inferred material as dilution. The grade of the inferred material was not considered when assessing whether or not the relevant part of the resource should be included in the reserve estimate.

Some material captured in the mine design and used for assessing the reserve included, as dilution, material that was unclassified in the resource model. Unclassified material typically included parts of the resource model that are assumed to be of a background grade for the valuable metals, but are not actually estimated in the modelling process. Unclassified material also includes dilution from the paste fill material. The grade for this material was assumed to be zero.

The unclassified material and inferred material makes up a small proportion of the reserve. Moreover it is directly adjacent to material that is classified as indicated. Given this, for the purposes of estimating a reserve, this material has been reclassified as indicated and included in probable reserve. All other indicated material captured with the mine design above the relevant cut-of grade was converted to a probable reserve. As specified in the JORC 2012 Code only indicated and measured material can be converted into a reserve.

Mining Methods and Mining Assumptions

The principal mining method proposed for the underground operation is uphole stoping with cemented paste. This is a proven mining method that is associated with good productivities and reasonable costs. Given the ground conditions a small level spacing (10m) has been used. This will allow for good control of the mining voids and drill and blast issues. The use of cemented fill means mining can be conducted on several levels.

Key to the success of the project will be managing geotechnical and hydrogeological issues. As such a detailed development design with multiple level access and short level spacing has been produce that will allow for control of the mining front while also providing scheduling flexibility.

Processing Methods and Processing Assumptions

Ore from the Siana underground operation will be processed at the existing 1.1Mtpa gravity and carbon-in-leach (CIL) processing facility located at Siana. A fixed gold tail of 0.44 g/t and a silver recovery of 45% have been used for metallurgical recovery.

Cut-Off Grade

A cut-off grade assessment was completed indicating an optimal cut-off grade of 2.4 g/t of Au equivalent should be applied for the purposes of developing a reserve estimate. Some low grade material has to be mined as development in order to access the resource above the economic cut-off grade. This material is not economic by itself; however, given that it has to be mined and transported to surface the valuable metal need only cover the cost of treatment. As a result this material has been included for the purposes of estimating the reserve. The cut-off grade for this material is 0.9 g/t Au equivalent.

Block Model Estimation Methodology

Grades were estimated using ordinary kriging which is an appropriate technique for resource evaluation of the style of mineralisation at Siana. The software package for statistics, variography and estimation was Surpac version 6.6. Grades for each mineralised zone were estimated separately using composited diamond drill hole samples from the mineralised zone being estimated. Outlying gold sample grades greater than 90 g/t Au were cut to 90 g/t Au based on a break in the Au grade sample distribution at 90 g/t Au. Search radii and orientations for grade estimation were based on the results of directional variography.

Material Modifying Factors and Approvals

Key approvals are in place for the Underground Development including the 2002 Mineral Production Sharing Agreement (MPSA), the 2009 Feasibility Study which led to the approval of the Partial Declaration of Mining Project Feasibility (DMPF), the 2009 Environmental Protection and Enhancement Program (EPEP), the 2009 (and amended 2011) Environmental Compliance Certificate (ECC) and the three year Development/Utilisation Program from November 2015 to November 2018.

Existing mine infrastructure will be used for the underground mine with some new office, workshops and accommodation buildings to be constructed.

Please refer to the Competent Person's statement and the detailed information given in the JORC Table 1 at the end of this Announcement in Appendix 1.

ENDS

For more information:**Investors/Shareholders:**

Mark Williams, Managing Director
Joe Mobilia, Chief Financial Officer
Red 5 Limited
Telephone: +61 8 9322 4455

Media:

Nicholas Read
Read Corporate
Tel: +61-8 9388 1474

About Red 5 Limited

Red 5 Limited (ASX: RED) through its associated Philippine company Greenstone Resources Corporation is a gold producer which operates the Siana Gold Project, located in the established gold mining region of Surigao del Norte in the Philippines. This richly endowed region hosts epithermal gold systems and world-class porphyry copper-gold deposits.

The Siana Gold Project re-commenced operations in January 2015 following the redevelopment of tailings storage capacity and is now focused on steady-state gold production and laying the foundations for the Company's future growth. The Company is focussed on the following key areas to create value for shareholders:

- **Reliable production** – to deliver steady and reliable production at Siana based on achievable targets;
- **Technical strength** – to implement high standards across all aspects of the business, including mining, processing, the management of the Tailings Storage Facility and the open pit wall cut-backs; and
- **Growth** – to lay the foundations for the Company's future growth by finalising its long-term mining plans for the open pit and future underground mine, and by recommencing exploration activities to grow its resource and reserve inventory and unlock the potential of its highly prospective exploration portfolio.

Competent Person's Statements**Siana Open Pit Mineral Resources and Ore Reserves**

The information in this report that relates to Mineral Resources and Ore Reserves at the Siana Open Pit is extracted from the report titled Siana Open Pit Mining Review and Reserve Update dated 24 September 2015 and is available on the ASX web-site. Red 5 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.

Siana Underground Mineral Resources

The information in this report that relates to Mineral Resources at the Siana Underground is extracted from the report titled Siana Underground Mineral Resource dated 23 February 2016 and is available on the ASX web-site. Red 5 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements. The Siana underground resource estimate was prepared by the Competent Person in accordance with the JORC 2012 code.

Siana Underground Maiden Ore Reserves

Dr David Trembath confirms that he is the Competent Person for Siana Underground Ore Reserves summarised in this Report. Dr Trembath has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Moreover, he is qualified as Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report and to the activity for which he is accepting responsibility. Dr Trembath is a member of The Australasian Institute of Mining and Metallurgy, (membership number 309404). Dr Trembath is a consultant working for Mining One Pty Ltd which has been engaged by Red 5 Limited to perform this work. He has reviewed the Report to which this Consent Statement applies and verifies that the Ore Reserve section of this Report fairly and accurately reflects in the form and context in which it originally appears in an ore reserve report.

Forward-Looking Statements

Certain statements made during or in connection with this statement contain or comprise certain forward-looking statements regarding Red 5 Mineral Resources and Reserves, exploration operations, project development operations, production rates, life of mine, projected cash flow, capital expenditure, operating costs and other economic performance and financial condition as well as general market outlook. Although Red 5 believes that the expectations reflected in such forward-looking statements are reasonable, such expectations are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or achievements to differ materially from those expressed, implied or projected in any forward looking statements and no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, delays or changes in project development, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. Except for statutory liability which cannot be excluded, each of Red 5, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this statement and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this statement or any error or omission. Red 5 undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly you should not place undue reliance on any forward looking statement.



APPENDIX 1 Siana Gold Project – Underground Reserve Update – JORC 2012 Table1 - Sections 1 to 4



1 JORC CODE, 2012 EDITION – TABLE 1 REPORT: SIANA GOLD PROJECT FOR THE UNDERGROUND RESERVE

1.1 SECTION 1 SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none">• <i>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.</i>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>• <i>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.</i>	<ul style="list-style-type: none">• The Siana deposit has been sampled from diamond drill core (DD) and Historic Percussion drill hole samples which were drilled during the 1970's and 80's. The drill section spacing is at nominal 20 metre intervals along the strike of the deposit and variable down dip. The nominal drill spacing above -165 m RI is 20m x 40m and below -165 by DD on a nominal 20m x 60m to 20m x 80m to approximately the -500mRI. Grade control channel samples collected from the restart in 2010 through to the cessation of operations in April 2012 were also used. The nominal surface height around the Siana pit edge is approximately 50mRI.• Sampling for diamond and RC drilling is carried out as specified within the company's sampling and QAQC procedures as per industry standard. RC chips and diamond core provide high quality representative samples for analysis. Historical data was completed by previous holders (Suricon) to industry standards at that time. All recent diamond core is aligned, measured and metre marked. All diamond drill core was systematically photographed before sampling for holes since 2003.• The core size and samples for the diamond holes were ¼ cut for PQ (83mm), 1/3 cut for HQ (54mm) and ½ cut for NQ 46mm). For the grade control samples the average channel sample width was 2.5m and approximately 1.5 kg was collected. All diamond holes from 2015 are cut into half for sampling for all hole sizes (PQ, HQ and NQ). For the company's diamond hole core samples were crushed, dried and pulverised. For assays, gold was done using a 50g charge for fire assay with AAS finish. For the other elements routine analyses included silver (0.5ppm DL), copper (5ppm DL), lead (5ppm DL), zinc (5ppm DL) by AAS following concentrated HCl and HCl/HNO3/HClO4 leach in latter stages on 1g sample, and arsenic/antimony (1ppm DL) by vapour generation/AAS from the same acid leach. For grade control the on-site laboratory was used. Samples were crushed, dried and pulverised to produce a 50 gram charge for fire assay. Assays by the previous holders (Suricon) were assumed to be conducted to industry standards at that time. Assays for the 2015 drilling for Au, fire assay is used in a 50g charge with AAS finish. Four acid ICP-OES method was employed to determine the 37 other elements which includes Cu, Pb, Zn, Ag, Mo, As, Sb, Al, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Fe, L, La Li, Mg, Mn, Na, Nb, Ni, P, S, Sc, Se, Sn, Sr, Te, Ti, Tl, V, W and Zr. Hg is determined through aqua regia digestion of 1 g



Criteria	JORC Code explanation	Commentary
		charge with ICP-MS finish
Drilling techniques	<ul style="list-style-type: none">• <i>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).</i>	<ul style="list-style-type: none">• Diamond drilling since 2003 was United Philippines Drilling (UPD) sled portable CS1000 6PL diamond drill rigs, later known as QED. These rigs are capable of drilling depths of ~350m, ~600m and ~1,000m of PQ3, HQ3 and NQ3 diamond core respectively. During the drilling operations, a geological aide was present at the rig at all times (rigs ran 24 hours per day continuously) specifically to record drilling progress, core recovery and downhole surveys. Holes were pre-collared to a depth of between 30 and 100 metres using tricone roller bit/mud rotary drilling and cased off with PW casing before PQ3 diamond drilling. Diamond coring continued at least 40 metres past the intended target. For the historic data confirmation as to the type of drilling at this stage cannot be confirmed, however due to the type of company (Suricon) managing the drilling it can be assumed that the industry best standards at the time were used. 2015 drilling was conducted by Major Drilling Group International (MDGI) using UDR 200 and VD5000 rigs. During the drilling operations, a geological aide was present at the rig at all times specifically to record drilling progress, core recovery, downhole surveys and take photos of the core
Drill sample recovery	<ul style="list-style-type: none">• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>• <i>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.</i>	<ul style="list-style-type: none">• Core recovery was measured at the drill site. Markers were placed in trays where core was lost, or where the hole passed through minor voids due to previous mining.• Industry standard drilling practices resulted in good sample recoveries for diamond core for drilling since 2003.• Core loss does occur and is generally around clay alteration zone or fracture zones or through historical backfilled underground stopes. Relationship appears to exist between recovery and grade for certain sections. The impact is under quoting mineralised material. This is considered minimal.
Logging	<ul style="list-style-type: none">• <i>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.</i>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>• <i>The total length and percentage of the relevant intersections logged.</i>	<ul style="list-style-type: none">• Core was logged by senior Filipino geologists and coded data were entered into a standard format spreadsheet, using two data entry clerks. Geotechnical logging of diamond core was overseen by Mining One Pty Ltd. A total of 54 holes used in the 2009 BFS Resource estimate were systematically logged, including 14,501 routine RQD measurements, and a number of other parameters from oriented sections of core including Q, Q', RMR and MRMR. Holes post 2009 were also geotechnically logged. All logging is to the level of detail to support the Siana style of mineralisation (Epithermal Gold). An additional 6 geotechnical holes for the East Wall geotechnical evaluation (2015) and 5 dewatering probing holes (2015) were also used for the geology interpretation update. Only the assays from SMDD159 and SMDD161 were available at the time of the resource estimation.• All logging recorded lithology, alteration and mineralisation; minor fields include colour, texture, structure, weathering and comments. All diamond drill core was systematically photographed at high resolution before sampling.



Criteria	JORC Code explanation	Commentary
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none">• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>• <i>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.</i>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<ul style="list-style-type: none">• All diamond and historical holes were logged for the entire length. Channel samples were visually inspected by Grade Control Geologists. Note grade control samples were not used in the estimation.• Altered and mineralised sections of the holes were sampled on a one-metre basis after splitting with a circular diamond-tungsten saw. PQ3 (83mm) diameter core was sampled by taking approximately one-quarter fillet, and HQ3 diameter core (54mm) was sampled by taking a one-third fillet for analysis. NQ3 diameter (46mm, rarely drilled), was split into equal halves. Further splits were later taken from selected holes for metallurgical purposes – these were taken from a central slab of core. Soft sections of core, particularly in the mineralised zones, were wrapped in tape before cutting to effectively maintain sample competence. In a later phase of cutting for metallurgical sampling all the mineralised zone was wrapped with tape. For the 2015 drilling altered and mineralised sections of the holes were sampled on a one-metre basis after splitting with a circular diamond-tungsten saw. All core sizes are split into equal halves where the other half is taken as sample. Minimum sample length for mineralised zone is 0.3m while maximum is 1.2m. On sections where there is no mineralisation, ¼ of the core is taken over a length of 2-meter sample.• For historical percussion or open hole sampling was conducted using Industry Standards at the time. For the Grade Control Channel samples these were collected in calico bags over a 2.5 m interval. Samples collected by trained Samplers under geological supervision.• Samples taken are appropriate for the Siana mineralisation style (Epithermal - Gold).• Sample blanks and industry standards are routinely submitted, Pulps retained to be re-submitted to test for reproducibility for all core submitted since 2003. For the grade control channel samples 1 in 20 was repeated. No blanks or standards were submitted.• The occurrence and distribution of coarse gold was tested by re-submission of bulk fines samples for screen fire assay, representing a range of gold grade from 0.3g/t to 102g/t in both carbonate and basalt mineralisation from throughout the Resource. Samples from the area affected by previous mining were avoided. The tests were conducted at both McPhar (Philippine Laboratory) and Amdel Laboratories (Australia). The results indicate that in general less than 20% of the gold is coarser than 75 micron, that there is a similar distribution of grade between the coarse and fine fractions, and that a high degree of confidence can be placed on the reliability of the routine 50g fire assays. All the evidence from the testing indicates low sample variance in the deposit. Field sampling precision was tested in a batch of 98 duplicate core splits selected from lithotypes unaffected by previous mining in holes SMDD061 to 085. The selection was made to represent a grade range above 0.3g/t Au, a range of rock types, and carbonate and basalt hosted mineralization types from throughout the Resource to a depth of -200m RL. Both PQ3



Criteria	JORC Code explanation	Commentary
		<p>and HQ3 core sizes were represented. The duplicate split was taken from the opposite side of the core as the original split to emulate the original sample weight as closely as possible. The resulting central fillet was retained for reference. Gold results indicated an acceptable level of precision between splits. The distribution of paired differences is similar for the PQ3 and HQ3 splits indicating no significant difference in the reliability of PQ3 splits compared with HQ3 splits.</p> <ul style="list-style-type: none">• The sample sizes are considered appropriate to the grain size of the material being sampled.
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none">• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>• <i>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.</i>• <i>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.</i>	<ul style="list-style-type: none">• The assay techniques used for Gold are appropriate and considered as a total assay. For Silver and other elements are also considered as a total assay. For Gold approximately 50g of sample pulp was used for fire assay gold analysis with AAS finish (0.005 ppm DL). Each charge of 30 crucibles contained 26 unknown samples, two replicates, one internal laboratory standard, and one blank. Routine analyses included silver (0.5ppm DL), copper (5ppm DL), lead (5ppm DL), zinc(5ppm DL) by AAS following concentrated HCl and HCl/HNO3/HClO4 leach in latter stages on 1g sample, and arsenic/antimony (1ppm DL) by vapour generation/AAS from the same acid leach. McPhar inserted two or three internal standards and one blank for every 100 samples.• No geophysical tools used for assay data.• All routine samples have been processed at McPhar Geoservices (Phil.) Inc. located In Makati, Metro Manila. The laboratory is accredited with ISO 9001 certification, and is a regular participant in the Australian based Geostats Pty Ltd international laboratory quality monitoring scheme. Umpire check analyses including fire assay (Au), AAS (multielements), sizing analysis, and screen fire assay (Au) were completed by Amdel Laboratory in Perth, (NATA registered for ISO/IEC 17025 and accredited for AS/NZS ISO 9001). Amdel was also a participant in the Geostats quality assurance survey. Geostats reported on the performance of both laboratories over the period April 2003 to April 2005. The regular surveys include distribution of sets of samples to over 120 laboratories worldwide. Elements of particular relevance include gold by fire assay, and silver, copper, lead, zinc and arsenic by AAS. Over the surveys completed during the review period Geostats concluded that both laboratories performed very well for all elements (gold, silver, base metals and sulphur) and were capable of producing high quality results. Ninety percent of biases associated with both laboratories' results were within 1.0 standard deviation. STANDARDS: Australian sourced gold standards (120g pulps, -75 micron, supplied by Gannet Holdings, Perth) were included in analytical batches from the inception of drilling. At start-up, standards or blanks were inserted every 50 samples, but as the programme evolved the frequency of use was increased to 1:20 and additional gold standards were introduced to cover a wider grade range (0.4g/t to 6.0g/t). The same internal laboratory standards were used throughout the period of the drilling



Criteria	JORC Code explanation	Commentary
		<p>programme. Synthetic and Certified Reference Materials (CRM) were used in both the gold and base metal analytical procedures. BLANKS: Initial blank samples comprised screened local andesite aggregate which averaged ~0.02ppm Au. A new commercial certified blank made from colour pigmented quartz sand was introduced for holes SMDD063 -155. Results for the commercial blank were consistently at or below the fire assay detection limit of 5ppb Au, confirming the excellent cleaning procedures used at the lab during the sample pulverisation process. ACCURACY: Excellent precision with minimal variance in accuracy is indicated for all standards used. Company policy is to repeat batches or partial batches where two (different) standards fall significantly outside a two standard deviation range – it has not been necessary to invoke the policy throughout the term of the resource drilling programme. Multi-element performance of the internal standards demonstrate consistent precision within 2SD tolerance limits. Performance of the McPhar internal gold and multi-element standards indicated consistently high levels of accuracy and precision. REPLICATES: A suite of selected pulps (82) were repackaged, re-numbered and re-submitted for blind repeat analysis of gold and multi-elements. Scatter plots indicate good batch to batch precision for all elements, with only minor scatter at lower grade levels. UMPIRE CHECKS: The accuracy of the McPhar analyses was checked at Amdel Laboratory in Perth on three occasions. Selected pulp samples (n=293) from resource diamond drilling with gold grades greater than 0.1 g/t were spatially representative of the Resource, and also the time interval over which the drilling was conducted. There is a high degree of correlation between the laboratories, with an insignificant positive bias in the McPhar results. For the 2015 drilling, one sample blanks and/or standard sample is inserted every 20 samples. The standards are from the previous exploration campaigns. The blank samples post-mineralisation limestone units are sourced from within the project area. Initial analysis of blank samples (22 blanks) resulted in 19 samples with below detection limit (<0.005 g/t) Au.</p>
Verification of sampling and assaying	<ul style="list-style-type: none">• The verification of significant intersections by either independent or alternative company personnel.• The use of twinned holes.• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.• Discuss any adjustment to assay data.	<ul style="list-style-type: none">• Significant mineralised intersections are reviewed by the Senior Geologist in charge.• No twinned holes were conducted.• All drill hole planning, drill hole surveys, core recovery, specific gravity and magnetic susceptibility determinations, geological logging and geotechnical logging are first recorded on data entry forms and checked by the Geologist in charge of the site. This data is manually keyed to spreadsheets, checked and verified by the Geologist and transferred to Australia by email. Drill hole records are copied for site files and originals retained in Perth. In Perth, data are checked by a senior database geologist prior to entry to a backup database and dispatch to ioDigital (a division of ioGlobal) for contracted database management and maintenance within acQuire software. ioDigital validated data and generated routine QA/QC reports on assay batches. ioDigital has provided this



Criteria	JORC Code explanation	Commentary
		<p>service for all drilling and sample data from the Siana Gold Project since inception. Currently data is stored on MS Access database.</p> <ul style="list-style-type: none">No adjustments to assay data were made. For the 2015 drilling assay values that are below detection limit are assigned by half the value of the detection limit before importing to the final database. A master file of all original assay results is kept for reference.
<i>Location of data points</i>	<ul style="list-style-type: none">Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.Specification of the grid system used.Quality and adequacy of topographic control.	<ul style="list-style-type: none">The accuracy of drillhole collar data and other accuracy dependent data collected on site using a survey grade Sokkia GSR2650 differential GPS instrument is computed to be +/- 0.25 metres. A digital terrain model (DTM) for use in mine planning and resource estimation was constructed from 3D point data derived from three sources: 1) ground survey measurements recorded by Greenstone Resource Corporation (GRC) personnel (32,940 points), 2) pit and waste dump surveys from Suricon site plans (2,377 points), 3) a digital terrain model constructed from stereo-pair Ikonos satellite imagery (subsampling at 50mx50m, 2,247 points). For the 2015 drilling the company used the NIKON DTM-322 (Accuracy = 2"), TOPCON PS-103A ESO 352 (Accuracy = 3"), and FOCUS 8 SPECTRA (Accuracy= 2"). The collar is initially surveyed prior to set up and then is resurveyed once the hole is terminatedAll modelling and geology interpretation was conducted using the Local Siana Mine Grid (No rotation is applied).Quality and accuracy of the drill collars are suitable for resource work and resource evaluation for Proved and Probable reserves.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none">Data spacing for reporting of Exploration Results.Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.Whether sample compositing has been applied.	<ul style="list-style-type: none">The drill section spacing is at nominal 20 metre intervals along the strike of the deposit and variable down dip. The nominal drill spacing above -165 m RL is 20m x 40m and below -165 by DD on a nominal 20m x 60m to 20m x 80m to approximately the -500mRL. Grade control channel samples collected from 2010 through to the cessation of operations in April 2012 were also used. The nominal surface height around the Siana pit edge is approximately 50mRL.The Siana mineralisation is defined sufficiently to define both geology and grade continuity for a Mineral Resource estimation and Ore Reserve evaluation for a bulk mining method. For a more selective mining method it is recommended that further infill drilling is done to confirm grade continuity. Depending on the mining method selected infill drilling could be obtained at the Grade Control level from underground drilling and face sampling.Samples are collected at 1 metre intervals and or to geology breaks. For the resource estimation 2 metre composites were generated and applied.
<i>Orientation of data in</i>	<ul style="list-style-type: none">Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul style="list-style-type: none">Due to the structural, lithological and alteration complexity of the mineralisation, there is potential for change in strike orientation for mineralisation. This may induce BIAS to the



Criteria	JORC Code explanation	Commentary
<i>relation to geological structure</i>	<ul style="list-style-type: none"><i>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.</i>	<p>data sampled.</p> <ul style="list-style-type: none">No material issues due to drill orientation sampling BIAS for key mineralised zones is expected due to the extensive geological knowledge and mining history, therefore this is seen as a low risk.
<i>Sample security</i>	<ul style="list-style-type: none"><i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none">Chain of Custody is managed by the Company. Samples were stored in a locked and patrolled storage pen on site, prior to transport to Manila by ferry. Each transported batch was accompanied by a GRC staff member until delivery and handover at the laboratory.
<i>Audits or reviews</i>	<ul style="list-style-type: none"><i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none">A detailed inspection of the laboratory facilities and procedures was conducted by company management prior to commencement of resource drilling in February 2003. Spot inspections were later made to review lab cleanliness and procedures during processing of Siana core samples. On each occasion the laboratory was observed to have maintained very high standards in the sample preparation area, fire assay facility and wet chemical section, and to follow accepted procedures in sample preparation and analysis. Independent inspection and review of the site data collection, sampling methods and QA/QC procedures, and the McPhar laboratory sample preparation facilities and analytical techniques was undertaken and reported by Snowden Consultants in 2005 and found to be within standard industry practice.



1.2 SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Siana resource is located in NE Mindanao, Surigao Del Norte, Philippines within Mineral Production Sharing Agreement (MPSA) No. 184-2002-XIII, granted on 11 December 2002 and registered in Surigao on 27 December 2002 for a term of 25 years (renewable for a further 25 years). The Siana MPSA is held by Greenstone Resources Corporation (GRC), a Red 5 affiliated company. The MPSA tenements are in good standing and also have the license to operate Mining within the Partial Declaration of the Project Mining Feasibility (PDPMF) of 245 ha within the MPSA.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Siana orebody was mined underground from 1935 to 1960 and by open pit from 1980 to 1990. Past mine production totalled 4.9Mt at 6.4g/t Au, producing 1.1Moz of gold. The original Suricon pit was mined to a depth of 110m (-60mRI). The current pit floor is at approximately -67.5m RI or approximately 117.5m depth. Early resource drilling on the project was conducted by Suricon from 1975-81; 30 holes were drilled totalling 3,514m. A second campaign of drilling took place during the open pit operations from 1983-89, consisting of 47 holes and 6,893m; these holes were drilled from the open pit benches as the pit was progressively deepened. Phoneix carried out some exploration airtrack bedrock sampling in 1993 and 1994 and defined some significant anomalies to the northwest along the Surigao Valley Fault. The company commenced its first campaign in 2003. A limited programme of RC and diamond drilling was undertaken with encouraging results. On this basis a major diamond drilling programme was commenced along strike of, and below, the old open pit. Drilling included specialised geotechnical and metallurgical holes. The database for the Siana resource estimate totaled 109 holes and approximately 47,300m plus the 79 historic Suricon holes drilled between 1980 to 1990 for approximately 10,600m and 10,417 Grade Control channel samples conducted by GRC before the Ccessation of operations in April 2012. Air core drilling of the tailings ponds and bulk sampling of the low grade surface dumps was also carried out. The company resumed exploration and extension drilling at Siana in March 2011, with holes drilled to the north, south and east of the pit to follow up mineralisation extensions along strike and at depth.
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Siana gold (silver-lead-zinc) mineralisation is characterised as a high sulphidation regime of epithermal affiliation, hosted predominantly within tectonised volcano clastics altered carbonate and basaltic lithological assemblages.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> a. easting and northing of the drill hole collar 	<ul style="list-style-type: none"> No exploration has been reported in this release, therefore there are no drill hole intercepts to report. This section is not relevant to this report on Mineral Resource.

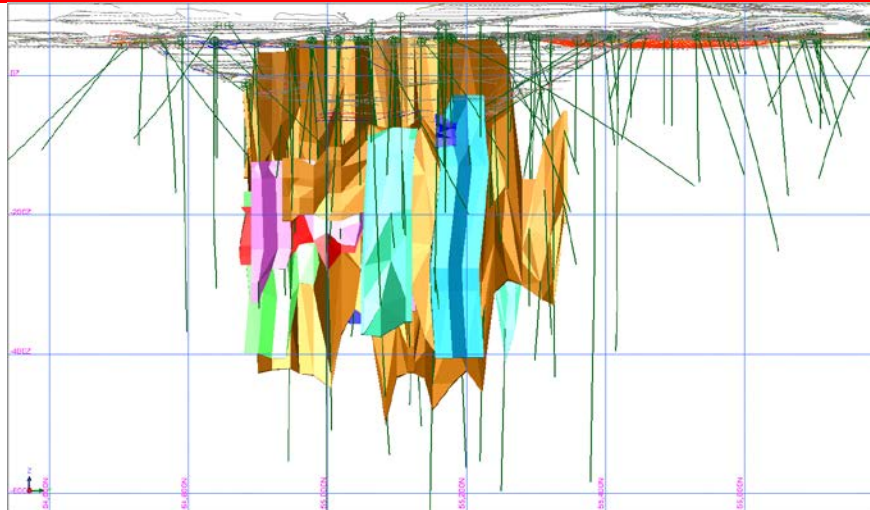


Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar c. dip and azimuth of the hole d. down hole length and interception depth e. hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • No exploration has been reported in this release, therefore there are no drill hole intercepts to report. This section is not relevant to this report on Mineral Resource. • There are no metal equivalents reported in this release.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • The mineralisation at Siana occurs over broad widths up to 60m in the main zone in the upper levels and narrows with depth to approximately 6 metres below the -300m RL. Between -130 to -290 mRL the main zone averages approximately 30 to 40 m in width. The deposit envelope is orientated approximately north-south with the East Wall fault zone having an influence in the orientation of the mineralisation. The main resource is up to 400 metres in strike and to a maximum of 400 metres down dip. The dip above the -290 mRL is near vertical to -80 to the east with the mineralisation below -290 mRL changing dip to -65 degrees to the east. The sub parallel footwall and hanging wall lenses are significantly small in width, and shorter in strike length and down dip extension varying from less than 100 metres to 300 metres. The average widths for the footwall and hanging wall lenses vary from 2 to 4 plus metres. • The drilling grid was orientated at 090 °– 270 ° (magnetic), a less than one degree variance from the original Siana Mine Grid. The majority of the resource holes were drilled toward magnetic east or west at moderate to shallow angles. • No exploration has been reported in this release, therefore there are no drill hole intercepts to report. This section is not relevant to this report on Mineral Resource.
Diagrams	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Location map for the Siana Drilling and the nominal 1 g/t gold grade envelopes:



Criteria	JORC Code explanation	Commentary
		<div data-bbox="1229 272 2096 783"></div> <p data-bbox="1229 799 1912 826">Section view of the nominal 1 g/t gold grade envelopes looking North:</p> <div data-bbox="1229 842 2096 1358"></div> <p data-bbox="1229 1374 1957 1401">Long section view of the nominal 1 g/t gold grade envelopes looking West:</p>



Criteria	JORC Code explanation	Commentary
		
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Majority of the exploration drilling used for the resource release was conducted before December 2012 (i.e. pre JORC 2012). Assays from the additional drilling from the 2015 geotechnical program were also used for the resource estimation. Refer to the 11 January 2016 ASX announcement (<i>High Grade Intersections from geotechnical drilling at Siana</i>).
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No substantive data acquisition has been completed in recent times.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Further infill drilling may be carried out inside the current JORC 2012 underground resource to improve confidence along with extensional drilling along strike and down dip.



1.3 SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none">Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.Data validation procedures used.	<ul style="list-style-type: none">All drill hole planning, drill hole surveys, core recovery, specific gravity and magnetic susceptibility determinations, geological logging and geotechnical logging are recorded onto data entry forms and checked by the Geologist in Charge. These data are manually keyed to spreadsheets, checked and verified by the Geologist and transferred to Australia by email. Drill hole records are copied for site files and the originals are retained in Perth. In Perth, data are checked by a senior database geologist prior to entry to a backup database and dispatched to ioDigital (a division of ioGlobal) for contracted database management and maintenance within acQuire software. ioDigital validate data and generate routine QA/QC reports on assay batches. ioDigital has provided this service for all drilling and sample data from the Siana Gold Project since inception. For the pre-2003 historical drilling it is assumed that the data was managed using industry standards of the time. Grade Control data used from the start of open cut mining in 2010 is stored using a Microsoft Access database. The current database is now managed on site using MS Access by GRC with backups stored in Perth.Data validation checks are based on the company's drilling, sampling, and quality control procedures. In addition, upon receipt of the database and during the work for this resource estimate, Mining One made checks on the database, including checking that:<ul style="list-style-type: none">drill holes plotted within the spatial limits of the Siana project;down-hole surveys were within the expected range;down-hole azimuths were in the correct range;there were no overlapping assay intervals;there were no overlapping lithology intervals;lithologies as plotted were consistent with Au assays;Au and other assays used for grade estimation fell within appropriate mineralisation interpretations;Au and other assays did not exceed the theoretical maxima for these elements given the mineral species present.These checks revealed no anomalies.
Site visits	<ul style="list-style-type: none">Comment on any site visits undertaken by the Competent Person and the outcome of those visits.If no site visits have been undertaken indicate why this is the case.	<ul style="list-style-type: none">Mick McKeown visited Siana from 3 December 2015 to 8 December 2015. He had previously visited Siana from 24 to 26 February 2015. He inspected relevant drill core, exposures of the mineralisation in the open pit, and reviewed and discussed the geological interpretation and ore controls with mine geologists, including the Resource Development Specialist, Byron Dumpleton.



Criteria	JORC Code explanation	Commentary
<i>Geological interpretation</i>	<ul style="list-style-type: none">• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>• <i>Nature of the data used and of any assumptions made.</i>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i>• <i>The factors affecting continuity both of grade and geology.</i>	<ul style="list-style-type: none">• The geological model is considered to be reasonable for this style of deposit.• Surveyed drill hole collars and down hole drill hole paths, geological logging and assaying of modern and historical diamond drill core, historical and modern geological mapping, and surveyed locations of historical underground development and stoping were used in the creation of the geological interpretation.• The geological model is considered to be reasonable for this style of deposit.• The Siana gold and associated silver-lead-zinc mineralisation belongs to the high sulphidation regime of epithermal affiliation. At Siana, the mineralisation is hosted predominantly within sheared and altered volcanoclastic sedimentary rocks, altered carbonates and basalts. The Siana lithology model is based on lithological interpretations compiled on cross-sections and level plans. Extensive use of core photographs and drill logs ensured consistency in the interpretation.• A three dimensional model of historical underground development and a longitudinal projection of the location of the historical stopes are available to help to identify the location and extent of underground workings. Interpretation of the location and extent of the historical underground stopes was assisted by the identification of workings intersected in drill core and the records of caved material and timber in historical drill logs. Review of underground level plans showing gold grades from historical underground sampling allowed an assessment of what were the most likely areas of stoping based on the historical mine cut-off grade.• The majority of the Siana mineralisation occurs in what is referred to as the “Main Zone”. The Main Zone occurs along a steeply dipping structural corridor between volcanoclastics on the footwall and basalt on the hanging wall. The structural corridor controls the strike, dip and shape of the Main Zone. In addition to the Main Zone, there are three smaller sub-parallel footwall lenses and nine sub-parallel hanging wall lenses which contribute to the resource.• Geological logging is used extensively to define mineralised boundaries. The mineralised zones have been defined based on a geological interpretation which coincides more or less with a nominal 1.0 g/t Au threshold grade.• The Siana drilling data generally intersects the mineralisation at appropriate angles.• The mineralisation at Siana is controlled by lithology, structure and brecciation, and changes in wall rock alteration and ore mineralogy with depth.
<i>Dimensions</i>	<ul style="list-style-type: none">• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	<ul style="list-style-type: none">• The Main Zone strikes at 330° to 360° and dips at -60° to -90° to the north-east. The strike length of the Main Zone is about 450m, known down dip extent is over 500m and the across strike horizontal thickness ranges up to about 60m. Main Zone includes six zones of internal waste, the largest of which has a strike length of nearly 400m, a down dip extent of about



Criteria	JORC Code explanation	Commentary
		<p>400m and an across strike horizontal thickness of up to about 15m. The Main Zone extends to about 500m below the original ground surface.</p> <ul style="list-style-type: none">• The three footwall zones are relatively small compared to the Main Zone and strike and dip parallel to the Main Zone. Strike lengths range from 20m to 250m, down dip extents range from 50m to about 250m and across strike horizontal thicknesses are less than 10m. The footwall zones extend to about 500m below the original ground surface.• The nine hangingwall zones strike at about 360° and dip steeply to the east. Strike lengths range from 10m to 250m, down dip extents range from 100m to about 400m and across strike horizontal thicknesses are generally less than 15m. The hangingwall zones are known to about 450m below the original ground surface.
Estimation and modelling techniques	<ul style="list-style-type: none">• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i>• <i>The assumptions made regarding recovery of by-products.</i>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>• <i>Any assumptions behind modelling of selective mining units.</i>• <i>Any assumptions about correlation between variables.</i>• <i>Description of how the geological interpretation was used to control the resource estimates.</i>• <i>Discussion of basis for using or not using grade cutting or capping.</i>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	<ul style="list-style-type: none">• Gold, silver, copper, lead and zinc grades were estimated by ordinary kriging which is an appropriate technique for resource evaluation of the style of mineralisation at Siana.• The software package for statistics, variography and estimation was Surpac version 6.6.• Grades for each mineralised zone were estimated separately using composited diamond drill hole samples from the mineralised zone being estimated. Outlying gold sample grades greater than 90g/t Au were cut to 90g/t Au based on a break in the Au grade sample distribution at 90g/t Au.• Search radii and orientations for grade estimation were based on the results of directional variography. Grades for each mineralised zone were estimated separately using composited diamond drill hole samples from the mineralised zone being estimated.• The maximum distance for extrapolation from data points along strike and down dip was about 50 metres.• No check estimates or reliable mine production records are available. The available historical production records are not adequate to allow for meaningful comparison of this estimate against production.• A previous estimate was made in 2004 but there are understandable differences between that estimate and this estimate. The differences are principally due to the improved understanding of the geology of the Siana mineralisation based on exposures in the current open cut; a change in the nominal threshold grade used to assist in the definition of the mineralised zones from 2.0 g/t Au cut-off to 1.0 g/t Au, based on statistical analysis; and the change in cut-off grade at which the resource has been quoted from 3.0g/t Au to 2.4g/t Au.• No assumptions have been made regarding the recovery of by-products but, in current processing, silver reports to gold bullion with processing recoveries of 40 to 45%.• Grades were estimated for the potentially deleterious and potentially economic significant elements copper, lead and zinc.• The block model has a parent block size of 20m N by 4m E by 10m vertically with sub celling to 5m N by 1m E and 2.5m vertically to achieve reasonable three dimensional modelling of the mineralisation. Grade estimations were made at the parent block size. The parent block



Criteria	JORC Code explanation	Commentary
		<p>size in the north-south direction was about half the nominal cross-section spacing. Grade estimation was constrained within wireframes representing individual mineralised zones. Grades were estimated in two passes; the first pass for the estimation of the grade of each element for each mineralised zone used a search ellipsoid with dimensions based on the ranges of the relevant directional variograms; the second pass for each estimation of the grade of each element for each mineralised zone used a search ellipsoid with dimensions adequate to allow grades in all blocks in the zone to be estimated.</p> <ul style="list-style-type: none">• No assumptions were made behind modelling of selective mining units.• No assumptions were made about correlation of variables.• Grade estimation was constrained within wireframes representing individual mineralised zones. Grades for each mineralised zone were estimated separately using composited diamond drill hole samples from the mineralised zone being estimated.• An area of historical stope area was flagged in the block model to allow for appropriate depletion of the model.• Outlying gold sample grades greater than 90g/t Au were cut to 90g/t Au based on a break in the Au grade sample distribution at 90g/t Au. Search radii and orientations for grade estimation were based on the results of directional variography.• Validation of the block model tonnages included comparisons of volumes of the zone wireframes and blocks representing the zones in the block model. The comparisons were satisfactory.• Validation of grade estimates were made by comparing average global grades made by ordinary kriging with average global grades estimated by a nearest neighbour method, and average global grades based on the averages of composited grades. There was reasonable to excellent agreement among all average global grade estimates.• Visual checks of estimated block grades against grades in nearby drill holes did not reveal any anomalies.• The available historical mining records are not adequate to allow for meaningful reconciliation of the model against production.
Moisture	<ul style="list-style-type: none">• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	<ul style="list-style-type: none">• Tonnages were estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none">• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	<ul style="list-style-type: none">• A cut-off grade of 2.4 g/t Au has been applied. At a gold price of AUD\$1500, this cut-off grade implies that material with a contained metal value of about AUD\$100 could be treated at a profit, which seems reasonable.
Mining factors or assumptions	<ul style="list-style-type: none">• <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions</i>	<ul style="list-style-type: none">• In 2015, mining studies by Mining One indicated that underground mining using decline access, trackless haulage and cut and fill stopeing was feasible. No mining parameters have been built into the resource model.



Criteria	JORC Code explanation	Commentary
	<i>made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Siana mineralisation contains gold and silver with silver to gold ratios from less than 1:1 to greater than 7:1. No assumptions have been regarding the recovery of silver but, in current processing, silver reports to gold bullion with processing recoveries of 40 to 45%. No metallurgical parameters have been built into the resource model.
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> Waste from processing is disposed at the current tailings storage facility at Siana. The Environmental Impact Statement (EIS) was prepared by BMP Environment & Community Care, Inc., and was accepted by the DENR EMB for review in November, 2008. BMP is a highly professional and well-respected Philippine company that has undertaken a number of environmental studies for major mineral and development projects in other business sectors. The EIS includes results of the detailed baseline studies. The major project impacts have been identified and an Environmental Protection and Management Plan formulated. The Environmental Compliance Certificate (ECC) was granted 21st April 2009. From a natural environment perspective the Project will have minimal, if not reversible impacts. Ongoing environmental monitoring over the past five years indicates there are no major environmental issues relating to the Project and indeed there will be a positive impact, especially an improvement in the quality of the water in the surrounding water courses, the impact of progressive revegetation program conducted and the positive impact on the socio-economic aspects due to livelihood and development programs designed for the local residents. The potential for acid mine drainage (AMD) from waste material generated by a new open pit development was tested using drill core samples from waste material within the pit design. The results indicated an inherent buffer capacity due to the presence of limestone and calcareous sediments to prevent acid formation, as supported by the sites routine measurements with near neutral pH from water within the historic open pit and drainages from the site area.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> Bulk densities have been determined, not assumed. Bulk density determinations are carried out routinely at site. Bulk density determinations for all lithological domains and footwall and hanging wall waste material have been made. From these determinations, average bulk densities have been attributed by lithological type. Bulk density for mineralised zones has been estimated from determinations of density made using the "Archimedes Method" on samples of diamond drill core taken from each metre sample interval.



Criteria	JORC Code explanation	Commentary
Classification	<ul style="list-style-type: none">• The basis for the classification of the Mineral Resources into varying confidence categories.• Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).• Whether the result appropriately reflects the Competent Person's view of the deposit.	<ul style="list-style-type: none">• The Mineral Resource has been classified as Indicated and Inferred based on geological and grade continuity. In practice, this meant that the Indicated resource is generally material with an average drill spacing of less than 40 metres which provides reasonable confidence in the geological and grade continuity. Inferred material is generally material that has an average drill spacing greater than 40 metres which provides lower confidence in the geological and grade continuity.• Validation of the block model shows acceptable correlation of the input data to the estimated grades. The input data is comprehensive and no biases are believed to have been introduced. The geological model has a high degree of continuity and confidence. Infill drilling has confirmed this continuity.• The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	<ul style="list-style-type: none">• The results of any audits or reviews of Mineral Resource estimates.	<ul style="list-style-type: none">• Satisfactory reviews of the resource estimates for this report were made by Mining One and Siana personnel.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none">• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	<ul style="list-style-type: none">• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code (2012 Edition). The block models and resource estimates are suitable for planning and scheduling of medium to long-term production over periods such as yearly or quarterly. The block model is not suitable for selection of blocks at the time of mining – block selection at the time of mining will require more sampling during a grade control program.• This statement relates to global estimates of tonnes and grade.• The available historical production records are not adequate to allow for meaningful comparison of this estimate against production.

**1.4 SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> <i>Description of the mineral resource estimate used as a basis for the conversion to an ore reserve.</i> <i>Clear statement as to whether the mineral resources are reported additional to, or inclusive of, the ore reserves.</i> 	<ul style="list-style-type: none"> A mineral resource estimate has been produced by McKeown (2016). The compliance with the JORC (2012) is dealt with in this report. A central conclusion of the report is that the resource estimate provided does comply with the criteria set out in JORC 2012. The measured and indicated parts of the resource model are inclusive of the mineral resources used in the determination of the reserve estimate. This is to say the reserve estimate should not be added to the resource estimate for the purpose of estimating the total mineral resource.
<i>Site visits</i>	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> A site visit was conducted by the competent person in 2015 for the purpose of assessing JORC 2012 compliance. A key recommendation from that visit was to produce an updated feasibility study to meet the conditions set out in JORC (2012).
<i>Study status</i>	<ul style="list-style-type: none"> <i>The type and level of study undertaken to enable mineral resources to be converted to ore reserves.</i> <i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert mineral resources to ore reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<ul style="list-style-type: none"> A bankable feasibility study was conducted in 2009 (Red 5 Limited, 2009a). Although much of this complied with the conditions set out in the JORC (2012) there were areas that required updating and more detail (Trembath, et al., 2015a). In 2016 another feasibility study was commissioned for the purpose of assessing the technical and financial viability of mining beneath the current designed life of mine pit (Trembath, et al., 2016). This study assesses a mine plan based on the indicated parts of the resource that is technically and economically viable.
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> An analysis based on guidance from Hall (2014) was developed to determine the optimal gold equivalent cut-off grade for the resource (2.4 g/t). This analysis modeled a range of inventories at varying cut-off grades to determine the optimal value.
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the mineral resource to an ore reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> <i>The major assumptions made and mineral resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> <i>The mining recovery factors used.</i> <i>Any minimum mining widths used.</i> 	<ul style="list-style-type: none"> Detailed development and stope designs based on geotechnical advice and optimum cut-off grade were used to convert the indicated parts of the mineral resource to an ore reserve. A range of mining methods were considered on technical and financial grounds. The mining methods chosen were based on developing a practical, safe and financially robust mine plan. Matters were complicated by the presence of old workings believed to have now collapsed and or back-filled. The proposed use of cemented paste fill will aid in the recovery of the resource and the overall stability of the mine. The geotechnical conditions to be encountered are likely to be fair to poor. Matters are complicated by the hydrology and the presence of old workings. Having noted this, the design criteria and support methodology used in the mine design process was based on sound geotechnical modeling. Tunnel development sizes were minimized, and stope designs kept within geotechnical guidance. A grade control program has been designed and costed for the resource.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"><i>The manner in which inferred mineral resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i><i>The infrastructure requirements of the selected mining methods.</i>	<ul style="list-style-type: none">A resource block model was used for the purpose of designing the mine. It is arguable that the block model will increase in complexity with grade control sampling. Given the current experience with mining the resource it is believed that this issue is unlikely to introduce any serious error in the estimation of the ore reserve.Dilution was based on a geotechnical assessment and applied to the final design stopes as dilution skin. Additional dilution from cemented backfill material was also applied at a rate of 5% of the total ore movement as a tonnage.Where short up-hole stoping is proposed a 95% mining recovery of the stoped ore inventory by tonnage is assumed. In and around old workings the mining recovery is assumed to be 80%. For the crown pillar zone the recovery is 30%. This low mining recovery represents the uncertainty associated with mining the crown pillar.The minimum mining width for stoping, including dilution is in the order of 3m. The minimum mining width for ore development is 4.5m.Inferred material is typically adjacent to material classified as indicated in the resource model. As a result, the scheduled mining of some of the indicated material will typically include some inferred material as dilution. To assess the implications of this the valuable metal associated with the inferred material was removed from the assessment of the relevant stope. If after this process the stope remained above the cut-off grade then it remained in the reserve inventory. If the stope grade as result of removing the valuable metal associated with the inferred material fell below the cut-off grade then the whole stope was removed from the ore inventory. This process ensured that it is not the grade of the inferred material that determined the economic viability of the ore inventory. However, given that the inferred grade is the best estimate of the grade of the relevant proportion of the diluting material in a stope it was used in estimating the grade.A separate mine plan was developed that included the assessment of all resource categories. The financial value of the resource improved significantly as a result including inferred material in the mine plan.The infrastructure requirements were addressed in the mining feasibility study including the specification of a paste-fill plant, primary and secondary ventilation fans, pumping system, electrical reticulation.
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i><i>Whether the metallurgical process is well-tested technology or novel in nature.</i><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i><i>Any assumptions or allowances made for deleterious elements.</i><i>The existence of any bulk sample or pilot scale test work and the degree to which</i>	<ul style="list-style-type: none">The Siana site already has an operating mill. Ore from the mineral resource is currently being processed and treated successfully.Ore currently being treated in the mill is considered representative of the underground mineral resource. The mill is currently performing with an estimated 89% recovery for gold and 45% recovery for silver. This recovery factor was used in the assessment of the resource.No assumptions or allowances were made for deleterious elements beyond what is already understood of the metallurgical characteristics of the ore.The mill produces a doré product.



Criteria	JORC Code explanation	Commentary
	<p><i>such samples are considered representative of the orebody as a whole.</i></p> <ul style="list-style-type: none"> For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	
Environmental	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<ul style="list-style-type: none"> The mine is currently operating with all relevant environmental permits. The mine plan involves a backfill system that will return a significant portion of the waste rock and tailings to underground void as a cemented product. A closure plan and fund exists for the mine.
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. 	<ul style="list-style-type: none"> The mine is currently operating. It is located a small distance off a main highway. Some adjustments to the site infrastructure are required including upgrade of site accommodation and power facilities.
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> Capital costs have been estimated on the basis of budget quotes from suppliers and detailed design and scheduling. Operating costs have been estimated on the basis of budget quotes from suppliers and detailed design and scheduling. Quotes from specialist mining contractors have been used to validate the estimates. No inflation or escalation in costs was assumed in the modeling. No allowances were made for the content of deleterious elements beyond what is currently understood. The study was costed in US dollars making it somewhat insensitive to exchange rate fluctuations. For those costs depending on exchange rates published rates at the time of the study were used. Transportation charges of the doré were provided by the company.
Revenue factors	<ul style="list-style-type: none"> The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> The head grade is derived from interrogating the resource model with the proposed mine design. Modifying factors were applied to account for recovery and dilution from backfill material. Treatment charges were based on what is currently achieved on site. Further charges for administration, royalties and excise tax was also accounted for. A gold price of \$1,200 per ounce US has been used for gold and \$14 US per ounce for silver. This pricing is consistent with guidance from a range of independent sources (Hubbard, 2015) (International Monetary Fund, 2016) (World Bank Group, 2016).
Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance 	<ul style="list-style-type: none"> Gold and silver are readily saleable and require no specific marketing or sales contract. There are no direct competitors in the production of gold and silver. Recent analysis shows increasing demand for gold with modest increases in supply (Street, et al., 2016). The price forecast assumes a fixed value over the life of the mine. The long term trend indicates that gold and silver price will increase. The current forecasts are within IMF



Criteria	JORC Code explanation	Commentary
	<i>requirements prior to a supply contract.</i>	guidance confidence intervals (International Monetary Fund, 2016).
<i>Economic</i>	<ul style="list-style-type: none"> <i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i> <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i> 	<ul style="list-style-type: none"> A discount rate of 2.5% was used in the analysis of the reserve estimate NPV. This rate is based on the Australian Government Bond long term yield rate. No inflation in either cost or prices has been assumed in the financial modeling. A Monte Carlo simulation of the cash value of the reserve was completed. The results indicate that there is a 75% chance that the project would be cash positive given systematic errors in major determinants of the value of the project.
<i>Social</i>	<ul style="list-style-type: none"> <i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i> 	<ul style="list-style-type: none"> The mine is currently operating with a good working relationship with land owners and government administrators and regulators.
<i>Other</i>	<ul style="list-style-type: none"> <i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the ore reserves:</i> <i>Any identified material naturally occurring risks.</i> <i>The status of material legal agreements and marketing arrangements.</i> <i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i> 	<ul style="list-style-type: none"> The major technical risks for the project are associated with water management, maintaining good ground conditions when mining in the ore, mining in and around old-workings, and the management of heat. The proposed mine plan addresses these risks to the extent that they are currently understood. There is some ambiguity in the guidance on escapeway requirement in the Department of Environment and Natural Resources (2000). It is recommended that further clarification be sought on this. However, it is the competent person's opinion that this issue is unlikely to represent a significant risk to the technical and economic viability of the project. There are no other outstanding legal issues that pose an impediment to mining. The mine is currently operating a producing open pit and complying with all relevant legal, social, environmental obligations. It is not anticipated that mining the underground resource beneath the pit will incur further risks in this regard.
<i>Classification</i>	<ul style="list-style-type: none"> <i>The basis for the classification of the ore reserves into varying confidence categories.</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> <i>The proportion of probable ore reserves that have been derived from measured mineral resources (if any).</i> 	<ul style="list-style-type: none"> A detailed mine design was completed targeting the parts of the resource classified as indicated (there was no material classified as measured) and above the specified optimal cut-off grade. Material within the relevant grades of valuable metal contained within these designs was considered for conversion to a reserve estimate. The majority of this material was classified as indicated; however, some diluting material included unclassified material and inferred material. Given that the inferred and unclassified material was typically adjacent to indicated material it was reclassified as indicated for purpose of a reserve estimate. The indicated material within the economic design was then converted into a probable reserve estimate. There is no proven reserve. It is the competent person's view that the methods used for the purpose of the reserve estimate provide a fair and reasonable estimate of the minable parts of the resource as it is currently understood. No parts of the resource were classified as measured.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of ore reserve estimates.</i> 	<ul style="list-style-type: none"> An audit of previous reserve estimates has been completed. To date no audit of the current



Criteria	JORC Code explanation	Commentary
		reserve estimate has been completed.
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none">• <i>Where appropriate a statement of the relative accuracy and confidence level in the ore reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i>• <i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on ore reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i>• <i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	<ul style="list-style-type: none">• The reserve is based on a feasibility study completed to a level of detail that is typically expected for the scale of the resource currently understood at Siana. The level of planning and analysis is greater than what would be expected in a prefeasibility study and thus the confidence in the results should have improved. A key factor in the assessment of the reserve is the accuracy of the cost estimates and key determinants such as the mine production profile. Confidence intervals around such estimates are almost impossible to quantify (McCarthy 2009, p.63). Maybe all that can be said here is that sufficient detail has been considered to show that the mine plan has a reasonable chance of success. On the current approach the use of geostatistical analysis to estimate the relevant confidence intervals would be complex. Simulation methods that may help in this regard, and have been recommended in the feasibility study. However, further work is considered unnecessary for the purpose of a reserve declaration primarily because the resource modelling currently reconciles well with production data.• Key risks to the reserve are: gold price, resource grade tonnage distribution, production rate, metallurgical recovery and mining costs. The competent person believes that the required attention to detail has been given to the project such that assumptions and estimates are based on reasonable grounds. However, the combined effect of errors in assumptions has been tested in a Monte Carlo simulation.• Modifying factors have been applied to account for uncertainties in mineability of certain parts of the resource. For instance a recovery factor of 30% has been applied to the crown pillar zone of the resource to reflect the uncertainty in the recovery of this part of the resource. For mining around old workings a recovery factor of 80% has been applied. For all other mining the assumed recovery is 95% of design shape. Dilution has been accounted for based on geotechnical analysis or in the case of paste fill dilution applied as a factor (5%).