



# Kingsgate

Consolidated Limited

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## Via ASX Online

Manager  
Company Announcements Office  
Australian Securities Exchange

### **Chatree 2013 Mineral Resources & Ore Reserves**

Kingsgate Consolidated Limited (ASX: KCN) is pleased to advise that it has increased the gold Mineral Resource inventory and Ore Reserves at Chatree, after mine depletion, over the 10 months to end April 2013.

Chatree Mineral Resources at 0.30g/t gold cut-off grade are now estimated at 4.03 million ounces of gold, an increase of over 9%, including mining depletion, compared to the June 2012 estimate of 3.81 million ounces of gold. The major positive changes relate to the results from a strategic drilling program that commenced at Chatree in late 2012 that has led to an upgrade in the resource model.

Chatree Ore Reserves at 0.35g/t gold are now estimated at 1.82 million ounces gold compared to 1.73 million ounces gold in 2012 at 0.30g/t gold cut-off grade. This is an increase in gold of 13% before mining depletion of approximately 122,000 ounces of gold. The mining depletion has been more than offset by the upgrade to the resource model and new pit designs. Higher costs have resulted in an increase in the cut-off grade from 0.30 to 0.35g/t gold. The overall changes have resulted in a decrease in reserve tonnes albeit at a higher average gold grade and consequent increase in reserve ounces.

The Mineral Resources and Ore Reserves have been reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition).

Gavin Thomas, Kingsgate's Managing Director and Chief Executive Officer, said "the increase in resources and reserves at Chatree is a great outcome and continues to justify our long-held confidence in the mine's world class standing.

Given the opportunity and nature of our planned drilling programs we are confident that the resources will continue to grow into the future."

**Gavin Thomas**  
Managing Director & CEO  
Kingsgate Consolidated Limited

## Chatree 2013 Mineral Resources and Ore Reserves Statement

As at 30 April 2013 Mineral Resources at Chatree at 0.30g/t gold cut-off grade total 4.03 million ounces of gold and 32.8 million ounces of silver in 188.3 million tonnes with corresponding Ore Reserves at 0.35g/t gold cut-off grade of 1.82 million ounces of gold and 17.04 million ounces of silver in 69.5 million tonnes of ore.

*Table 1: Mineral Resources, inclusive of Ore Reserves and Stockpiles, Chatree Gold Mine April 2013*

Chatree Mineral Resources, April 2013, Inclusive of Ore Reserves & Stockpiles At 0.30g/t Gold Cut-Off Grade					
Category	Tonnes (Million)	Grade		Contained Metal	
		Gold (g/t)	Silver (g/t)	Gold (M oz)	Silver (M oz)
Measured	92.8	0.72	6.60	2.15	19.7
Indicated	49.8	0.64	4.69	1.02	7.51
Inferred	45.7	0.58	3.81	0.85	5.60
<b>Total</b>	<b>188.3</b>	0.66	5.42	4.03	32.8

1. Note: Rounding of some figures may cause numbers not to add correctly.

### Mineral Resources

Since estimation of the 2012 Mineral Resources, additional drilling has been included prior to the 2013 estimate. The drilling was part of a strategic exploration program within the mining leases at Chatree that commenced in late 2012 and was designed to investigate a number of specific areas that had the potential to upgrade both mineral resources and ore reserves at Chatree and included:

- Upgrading Inferred Resources for optimal long term mine planning;
- Targeting extensions to currently known areas of mineralisation;
- Exploring deeper higher grade structures that may have the potential to extend the pit deeper or potential for underground mining.

As at the end of April 2013 Recoverable Mineral Resource at Chatree at 0.30g/t cut-off grade totals 4.03 million ounces of gold and 32.8 million ounces silver in 188.3 million tonnes of rock. The upgraded resource, including depletion from production to the end of April 2013, represents an increase of 356,000 ounces of gold and 2,162,000 ounces of silver when compared to the June 2012 Mineral Resource estimate for Chatree at the same cut-off grade.

The increase in the global Mineral Resources at Chatree was most noticeable at the Q Prospect, where recent drilling encountered significant gold mineralisation at or near the surface. The inclusion of new drilling from A, D, S and K Prospects, has also had a positive impact on the Mineral Resource Estimate.

Further drilling opportunities are available to target Inferred Resources that lie in close proximity to current pit designs, within the mining leases. Note also that several new significant intercepts at A Prospect are identifying new areas of gold mineralization with perceived potential at shallower depths. A drill plan is under consideration for these areas.

### Ore Reserves

Ore Reserves at 0.35g/t gold cut-off grade total 1.82M ounces of gold in 69.5M tonnes of ore at a gold grade of 0.81 g/t. These ore reserves are based on optimisation of the Mineral Resource model with current costs, revenue and recovery parameters. The increase in the cut-off grade had resulted in an increase in gold grade from the mine to 0.85g/t from 0.77g/t gold (excluding stockpiled ore) and a decrease of approximately 1.8M tonnes of ore. The new pit designs resulted in a decrease in the waste to ore stripping ratio from 3.0:1 to 2.8:1(excluding waste capitalised to TSF #2.)

The 2013 Ore Reserve estimate for Chatree is an increase of 13% in gold ounces compared to the 2012 estimate, pre mining depletion. The total of 1.82M ounces of gold comprises 69.5M tonnes (71.3M tonnes) of ore at a gold grade of 0.81g/t (0.75g/t). Estimates for 2012 are in brackets.

From the reconciliation graph below, the positive impact of the new resource model, principally driven by the additional data from the drilling, and new pit designs clearly offset the negative impact of mining depletion and the higher cut-off grade (COG). The increase in COG was driven by the combined effect of an increase in costs.

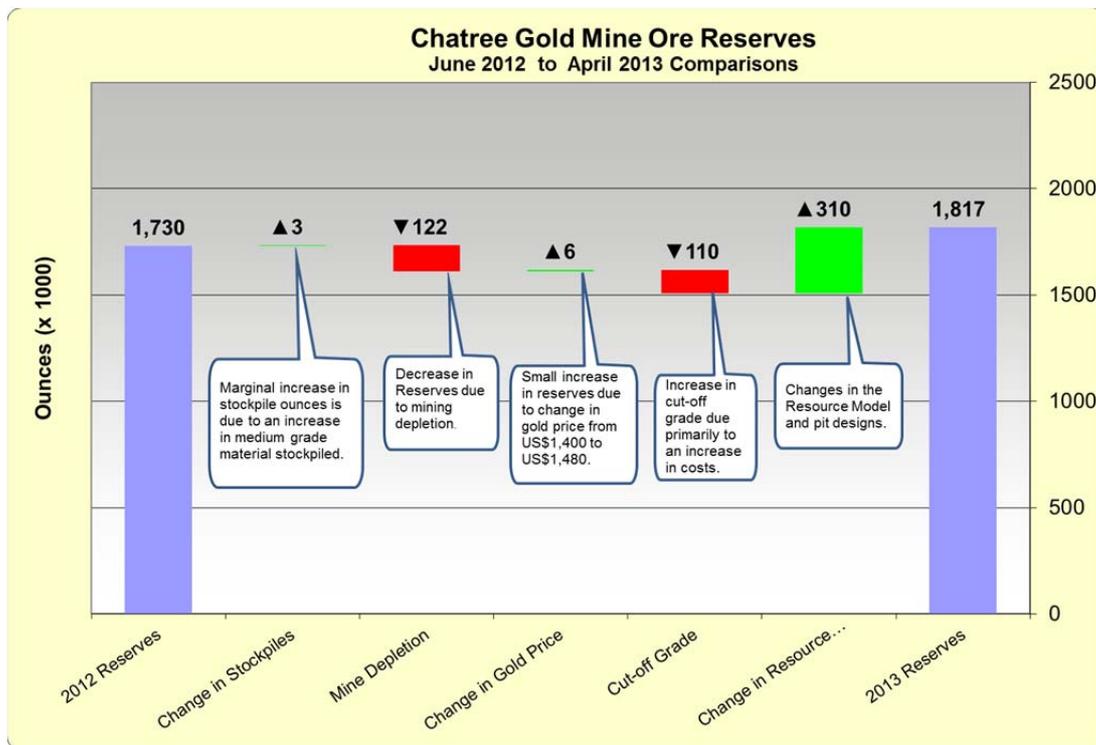
Table 2: Ore Reserves at Chatree Gold Mine April 2013

Chatree Ore Reserves Inclusive of Stockpiles At >0.35g/t Gold cut-off grade					
Category	Tonnes (Million)	Grade		Contained Ounces	
		Gold (g/t)	Silver (g/t)	Gold (M Oz)	Silver (M Oz)
Proved	45.4	0.87	7.8	1.27	11.39
Probable	14.8	0.78	6.0	0.37	2.86
Stockpiles	9.3	0.58	9.3	0.17	2.78
<b>Total</b>	<b>69.5</b>	<b>0.81</b>	<b>7.6</b>	<b>1.82</b>	<b>17.04</b>

Notes:

1. Reserves are based on a gold price of US\$1,480/oz and a silver price of US\$26/oz.
2. All reserves are based on detailed pit designs.
3. Rounding of figures may cause numbers not to add correctly.

Figure 1 : Reconciliation of Chatree 2013 Ore Reserve estimation to 2012



#### Competent Persons Statements:

In this report, information concerning Thailand operations relates to Exploration Results, Mineral Resources and Ore Reserve estimates is based on information compiled by the following Competent Persons: Ron James, Brendan Bradley, Kevin Woodward and Suphanit Suphananthi who are employees of the Kingsgate Group. All except Brendan Bradley are members of The Australasian Institute of Mining and Metallurgy; Brendan Bradley is a member of the Australian Institute of Geoscientists. These people qualify as Competent Persons as defined in the Australasian code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 edition) and possess relevant experience in relation to the mineralisation of being reported herein as Exploration Results, Mineral resources and Ore reserves. Each Competent Person has consented to the Public reporting of these statements and the inclusion of the material in the form and context in which it appears.

The information in this report that relates to Chatree Recoverable Mineral Resource estimation is based on work that has been audited by Jonathon Abbott who is a full-time employee of MPR Geological Consultants and a member of the Australasian Institute of Geoscientists. Mr Abbott has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Abbott consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

## Chatree Gold Mine, Thailand

### JORC Code 2012 Edition – Table 1

#### Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>The deposit was sampled by a combination of surface diamond drill (DD) and reverse circulation (RC) holes</li> </ul>
	<ul style="list-style-type: none"> <li>Sampling is guided by the Kingsgate Group protocols and QAQC procedures as per industry standard.</li> <li>Standard samples, duplicated samples and blank samples are inserted into the assay samples batch at least 1 in every 25 samples. Each sample batch submitted for assay has 100-150 samples with a maximum of 250 samples per batch. All RC samples are then transported to the Chatree Mine laboratory for assaying. Wet RC samples will be left to naturally dry prior riffle splitting.</li> </ul>
	<ul style="list-style-type: none"> <li>The Chatree Gold Mine is a low sulphidation epithermal gold–silver deposit and spans 2.5 by 7.5km comprising at least 8 gold-silver bearing quartz vein structures, five of which are currently being mined by open pit methods. All deposits have been drilled and sampled using industry standard techniques. For RC drilling, a sample from each metre is collected from the cyclone then split with a riffle splitter to create two representative samples of 3-4 kg in weight each (depending on initial sample mass); one sample is sent to the laboratory for assaying and the other kept as a reference sample. Diamond core is logged for geology and geotechnical characteristics. With the exception of barren dykes within the system, diamond core is typically sampled on 1 metre intervals and halved using a diamond saw. The sample is sent to the laboratory for assaying and the remaining core is kept in core trays for future reference.</li> <li>All samples are dried, crushed and pulverised to get 85% passing 75 microns, with a 50g charge analysed for gold by fire assay technique with AAS finish and silver by AA technique.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>During the course of exploration and resource development drilling at the Chatree Gold Mine, two main types of drilling were employed. These were face sampling reverse circulation drilling (RC) and diamond drilling (DDH).</li> <li>The majority of DD samples are half core samples of NQ and HQ core size and RC samples are collected by a cone or riffle splitter using a face sampling hammer with a nominal 5.5 inch to 5.25 inch hole.</li> <li>The latest drill database comprises 691,330 metres of drilling. These were face sampling reverse circulation drilling (RC) of 571,861 samples (83%) and diamond drilling (DDH) of 119469 samples (17%), some of the drilling has been carried out by mixed equipment drilling (RD) and others have made drilling for Water (RW) which was sampled.</li> <li>At periodic points through drilling, when competent core is being drilled, core orientation is carried out. All orientated core is logged and photographed.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>RC sample recovery is calculated from weighing the dry sample prior to riffle splitting. This weight is compared with the calculated full recovery weight. Overall average RC sample recovery is 80%. Some lower sample recoveries are commonly found in soft and less competent rock such as soil, shear zones or broken rock.</li> <li>Most RC sample in Chatree are dry, with 73% samples having moisture records completely dry and 27% have moisture in the sample.</li> <li>Diamond core recovery is recorded by the drillers and checked by the field geologist.</li> <li>Average DDH core sample recovery is 85%. Most of the DDH core is drilled from fresh rock in RC pre-collars where most of the rock is competent. Some lower DDH core recoveries are associated with shear or breccia zones, although these are relatively uncommon at Chatree and seldom associated with mineralized zones.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>Overall the samples of RC and DDH show good recoveries. It has determined that the relationship between gold grade in the mineralization and recovery has not introduced a bias in the resource sampling.</li> </ul>
	<ul style="list-style-type: none"> <li>In order to improve sample recovery and reduce contamination in the small number of wet RC drill holes a drill bit slightly smaller than the hammer is used.</li> <li>Drilling in a broken ground in northern operation usually requires the use of an air compressor and booster to maintain adequate recovery of RC chip samples and reduce the likelihood of sample contamination.</li> <li>The drilling contract and daily geological supervision of the drillers require the operators to do their best to provide good quality, uncontaminated samples with good recovery.</li> </ul>
	<ul style="list-style-type: none"> <li>Overall the samples of RC and DDH show a good recovery especially inside the mineralised zones. It has determined that the relationship between the recovery and the grade do not show any bias, the author considers that the Chatree resource sampling recovery is generally appropriated and that relationship between gold grade in the mineralization and recovery has not introduced a bias in the resource sampling</li> <li>Preferential loss/gain of fine/coarse material is considered to be low. For time to time, RC drill samples have been sieved and the fine and coarse sample material has been separately assayed. Side by side comparisons show no assay bias between both sample sizes.</li> <li>RC vs DDH comparisons were assessed using closely paired sample points mainly from five pairs of holes (RC holes = 129, 130, 131, 132 &amp; 134, paired with DDH holes 474, 475, 476, 468 &amp; 469, respectively). 558 pairs of closely spaced two metre composites (ie RC – DDH points within 10 metres of each other) exist. Based on the results for 544 sample pairs with outliers removed (ie samples &gt; 30 g/t) there is an overall close agreement between RC and DDH samples. No bias is noted between RC and DDH sample pairs.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Geological logging is completed for all holes and representative across the deposit. The lithology, alteration, and structural characteristics of RC chips and drill core are logged to a paper based system and then transferred directly into the database using the Chatree geological codes. This data is imported into the central database after validation in Micromine, Access and proprietary import tool constructed by H&amp;S Consultants.</li> </ul>
	<ul style="list-style-type: none"> <li>Over the past 10 to 14 years, logging is both qualitative and quantitative. Checks and rechecks of logging take place when new holes are drilled adjacent to older holes. This provides a good cross check against geologist variation. The majority of geologists on site recording geology data have been working at Chatree in excess of 5 years</li> <li>All drill core is photographed, and RC chips are stored on site in a chip board library. Drill core is stored on site in a core reference library.</li> </ul>
	<ul style="list-style-type: none"> <li>All RC and DD drill holes are fully logged for geology, recovery, mineralisation, alteration, geotechnical (DD), and sample quality.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>The majority of drill core was sampled by taking half core samples from the same side of the core. Core was cut using a core saw and diamond blade. In broken ground the geologist and sampler took random pieces of broken rock to represent the metre as best as possible. Broken rock accounts for a very small proportion of the core.</li> <li>All samples are weighed and recorded. Some quarter core samples have been used and statistical comparison and their quantity is immaterial.</li> </ul>
	<ul style="list-style-type: none"> <li>RC Samples are split using a riffle splitter</li> <li>The majority of RC Samples are dry. On the occasion that wet samples are encountered, they are dried prior to splitting with a riffle splitter.</li> </ul>
	<ul style="list-style-type: none"> <li>The procedure for RC sampling on site is as follows: The full RC sample from each metre is collected from the cyclone then once dry split with a riffle splitter to produce two representative samples of 3-4 kg each (depending on initial sample mass); one sample is sent to the laboratory for assaying and the other kept as a reference sample. Standard samples, duplicated samples and blank samples are inserted to the assay samples batch at least 1 in every 25 samples. Each sample batch submitted for assay has 100-150 samples with a maximum of 250 samples per batch. All RC samples are then transported to the Chatree Mine laboratory for assaying.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Following the marking up of the core by the geologist HQ and NQ core were halved diamond blade core cutting saw. After cutting the core was placed back in the core tray for checking by the geologist to ensure correct cutting and replacement. Bagging of the samples for analysis was carried out under the geologist's supervision. Sample numbers were written on the remaining ¾ or ½ core at the start of each sample interval with an arrow indicating the direction of the sample. Standard samples and blank samples are inserted to the assay samples batch at least 1 in every 25 samples. Each sample batch submitted for assay has 100-150 samples with a maximum of 250 samples per batch. All DDH samples are then transported to the laboratory at Chatree Gold Mine for assaying.</li> <li>• The on-site laboratory at the Chatree mine site is currently certified by ISO with a 17025 rating.</li> <li>• Samples as received are dried to remove moisture. All samples have been dried at 120o C for a minimum of 8 hours. The entire dry sample is crushed, by means of a Rhino Jaw Crusher to a nominal 2-4mm. A 1-1.5kg split is taken and pulverised in a 2000cc Labtechnics B2000 pulveriser. No sieve tests are performed. A second coarse split is taken from the jaw crush at regular intervals (~10th sample) and assayed. In addition to the normal replicate assay (Au1, Au2 &amp; Au3) of pulps taken from the original sample aliquot, "resplit" jaw-crushed material are taken at approximately every 10th sample. OREAS standards are used as internal laboratory standards.</li> </ul> <ul style="list-style-type: none"> <li>• For RC : Certified standard samples, duplicate samples and blank samples are inserted to the assay samples batch at least 1 in every 25 samples</li> <li>• For DDH : Certified Standard samples and blank samples are inserted to the assay samples batch at least 1 in every 25 samples. Each sample batch submitted for assay has 100-150 samples with a maximum of 250 samples per batch.</li> <li>• Evaluation of results from the submitted certified standards is carried out on a batch by batch basis, and on a monthly basis to check for accuracy and bias. The majority of standards show an overall mean bias of less than 5% with no consistent positive or negative bias. Duplicate assays show good correlation with its pair and no apparent bias.</li> </ul> <ul style="list-style-type: none"> <li>• Field RC duplicates are taken at the rig from the second chute on the riffle splitter (where the reference sample is taken from). Field duplicates are every 50<sup>th</sup> sample.</li> <li>• Diamond core sample utilise the laboratory sample preparation duplicate procedure instead.</li> <li>• Within the laboratory at the sample preparation stage, a second coarse split is taken from the jaw crush at regular intervals (~10th sample) and assayed.</li> <li>• Both the results of the field duplicate samples and the laboratory duplicate samples show an acceptable level of repeatability for a low sulphidation epithermal gold silver deposit.</li> </ul> <ul style="list-style-type: none"> <li>• The sample size is considered appropriate for a fine gold/silver low sulphidation epithermal deposit</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• Assaying for gold and silver on primary samples is carried out by Chatree Gold Mine on site laboratory. Gold assaying is by fire-assay (25 and 50 gram samples) with AAS finish. All assays greater than 6.0g/t Au are repeated using a gravimetric finish. Ag is assayed using an aqua regia digestion with AAS finish.</li> <li>• The on-site laboratory at the Chatree mine site is currently certified by ISO with a 17025 rating.</li> <li>• The analytical technique is considered to be a total representation of the interval sampled.</li> </ul> <ul style="list-style-type: none"> <li>• The use of geophysical tools is not applicable because these techniques are not used for Resource estimation.</li> </ul> <ul style="list-style-type: none"> <li>• An appropriate sampling protocol has been designed and implemented specifying how samples will be collected, split and subsequently prepared in the laboratory. Laboratory sample preparation is routinely checked using grinding tests and sieve analysis and thorough documentation is executed. Analytical standards, rig splits, blank samples and duplicate sampling are always included and all are routinely plotted to determine if they are within a predefined tolerance. Inter-laboratory checks are done on a periodic basis and the results are analysed statistically.</li> <li>• The QA/QC procedure established over 13 years (2000 – 2013) to control and ensure the representativeness of the samples is maintained in the time obtaining high quality sample to represent a large volume of ore in situ. The procedures identify the best practices for collection, recording, sample preparation, safety procedures and other established standards to ensure precision and accuracy made in Chatree Gold Mine.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Overall, the standard samples, duplicated samples and blank samples are inserted to the assay samples batch at least 1 in every 25 samples; duplicate samples are out of sequence. Each sample batch submitted for assay has 100-150 samples with a maximum of 250 samples per batch. The duplicated sample is not inserted in DDH sampling. All samples are then transported to the Chatree Mine laboratory for assaying.</li> <li>• Evaluation of results from the submitted certified standards is carried out on a batch by batch basis, and on a monthly basis to check for accuracy and bias. The majority of standards show an overall mean accuracy of less than 5% with no consistent positive or negative bias. Duplicate assays show good correlation with its pair and no apparent bias.</li> <li>• In cases where standard assays fall outside of the acceptable range, the entire batch is re-assayed once the error is determined.</li> <li>• Results of the QAQC sampling are considered acceptable for a low-sulphidation gold silver deposit. Substantial focus has been given to ensuring sampling procedures meet industry best practice to ensure acceptable levels of accuracy and precision.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• Significant intersections have been verified by alternate company personnel and external consultants.</li> <li>• Significant intersections have been re-assayed by different techniques (including Leachwell, Fireassay) to determine their accuracy.</li> <li>• Comparison between nearby Resources composite samples &amp; grade control (“GC”) composite samples using a maximum five metres east-west by five metres north-south by 2 metres vertical search gave data pairs for 13% of the 314972 resource composites in the study. The paired resource and GC composites show comparable average grades. The GC is considered as independent check to verify the intersection of resource drilling.</li> </ul>
	<ul style="list-style-type: none"> <li>• Twinned holes are not routine. However the extended history of drilling at Chatree has resulted any many overlapping drill hole samples from different holes that lie adjacent with each other can be used to compare averages and assay representivity. With the exception of assay outliers (eg high grade), data pairing of these overlapping intercepts shows no significant misrepresentation of the grades.</li> </ul>
	<ul style="list-style-type: none"> <li>• Data was accumulated and compiled covering collars, surveys, assays including rig splits and standards as well as laboratory duplicates (check assays), lithology, veins, alteration styles, recovery data for both RC and core holes together with moisture readings. Additional data gathered include spot heights for topography, structural and geotechnical orientation information including where possible RQD, rock hardness and compressive strength, densities and preliminary metallurgical data. As a matter of course drill logs were produced and core was inspected on site. Data is organised in an appropriately protected relational Access database.</li> <li>• The Kingsgate Group have in place formal data validation procedures for data in the database with data being validated as close to the source as possible to ensure reliability and accuracy. Inconsistencies identified in the validation procedures are re-checked and changes made to the database once the problem is identified.</li> <li>• Consistency of loggers over time, different loggers over a single campaign and between successive drilling campaigns are considered and standardisation is attempted. In cases where standardisation is not possible, portions of core and/or RC chips are revisited to pinpoint the inconsistencies. The consistency of lithological, alteration, mineralisation and structural data are cross-referenced intermittently throughout campaigns. All inconsistent logging are recorded in sheets and updated in the database.</li> <li>• The entire drill hole is logged and this information is transferred to the database. The data entry process includes routine cross checks by geologists and also the database import tools. Any errors are immediately rectified.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assay results are not adjusted as they represent total gold for the sample interval. However <ul style="list-style-type: none"> <li>○ All samples with gold value below detection limit -0.01 are replaced by 0.005 assay result.</li> <li>○ If the sample doesn’t have gold value because it is in a late stage dyke, the null value is replaced with 0.00 , but it is left as null for other lithology codes.</li> </ul> </li> </ul>
<b>Location of data points</b>	<p>TOPOGRAPHY</p> <ul style="list-style-type: none"> <li>• A local mine grid is utilised at Chatree Gold Mine.</li> <li>• Regularly updated site topography is provided by the on-site survey team.</li> </ul>

Criteria	Commentary
	<p>HOLE COLLAR SURVEY All hole collars are picked up using a DGPS or by the site survey team. Down Hole Surveying</p> <ul style="list-style-type: none"> <li>As long as ground conditions are suitable all diamond drill-holes, RC holes and holes with diamond core tails were subjected to down-hole surveying. There is little evidence of significant hole deviation for holes with 50 to 100 m pre-collars however all RC holes in-excess of 50-80m are surveyed. Holes were surveyed at 25 to 30 m intervals. The surveying was usually undertaken during withdrawal of the drill string from the hole with the use of a stainless steel rod at the measuring end.</li> <li>Some rocks, mostly dykes, have a minor to moderate magnetic content and may have influenced some of the azimuth readings. However, in general, there was very little variation between readings in any given hole and a stainless steel starter rod is used where ever downhole survey is to be undertaken to neutralise and remanent magnetism in the steel rods or in the rock units.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Nominal drill spacing is 20 x 25 metres. Selected area with good geological continuity have been drilled at 40 x 50 metres and may be subject to selective infill drilling to 20 x 25 metres where necessary or as required for mine planning purposes.</li> <li>RC samples are nominally 1 metre when sent for assay testing. Core samples are sampled using geological boundaries - the sample size is nominally 1 metre but can be as small as 30 centimetres. Samples are composited to 2 metres lengths for resource evaluation.</li> </ul>
	<ul style="list-style-type: none"> <li>Data spacing and distribution are sufficient to establish the degree of geological continuity appropriate for JORC 2012 classifications applied.</li> </ul>
	<p>The current Resource estimate is based on two metres down-hole composites from RC and diamond drill database. This composite interval was selected as a multiple of the common 1 metre sample length (which represents a combined 92% of the resource drilling).</p>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>The majority of the resource drill holes are generally inclined at around 55 degrees, and oriented approximately perpendicular to the local dominant mineralisation controls. Structural logging of the orientated core confirms that the drilling is for the most part perpendicular the dominant mineralised trends.</li> <li>In areas where the resource drill holes are sub-parallel to the dominant mineralisation structures, comparison with grade control sampling shows no significant difference in mean gold grades. Cases where sub parallel drilling occurs, or is not certain, usually result in "scissor holes" being drilled in the opposite direction to ensure the mineralisation trends are accurately mapped.</li> </ul>
	<ul style="list-style-type: none"> <li>Paired resource and GC composites show comparable average grades for composites in East Dipping direction (perpendicular to mineralisation) with the West dipping composites showing a slight bias in the higher grade outliers. The east dipping and west dipping composites show a good correlation until composite values are above 3.5 Au g/t. Considering the proportion of Resource Composites with gold grade values over 3.5g/t Au is 5% for compositing in east direction and 3% for west direction any sample bias caused by drilling sub parallel to the mineralisation is considered to be immaterial to the Resource estimation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>RC samples are delivered to the assay laboratory by company staff at the end of drill hole. If samples are left on site overnight they are considered secure, because there is a guard on site at night time when there is no drilling operation. Samples are transported directly from site to the assay laboratory.</li> <li>Drill core is cut and transported directly to the assay laboratory. Duplicate samples are reviewed and are out of sequence so any risk of sample tampering would be also noticed in duplicate QAQC Checks.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>In the past Hellman and Schofield (H&amp;S) have carried out resource estimations at Chatree from pre-feasibility in 1999 until the 2010 Mineral Resource. In 2011 the resource estimations were carried out on site and audited by H&amp;S. Further resource estimation work has been carried out in conjunction with resource consultant Jon Abbott of MPR Geological Consultants Pty Ltd. Information and maps from these reports have been integrated into this report.</li> <li>Chatree Gold Mining is routinely visited by external competent persons that review and discuss all procedure of sampling techniques, geological interpretation, parameter of the estimation. These audits and reviews are stored on the central server for reviewing.</li> <li>The authors of the current estimation are competent persons of the company who regard the estimation procedure, data and assay quality, geology and mineralisation and its continuity as appropriate for the style of mineralization of deposit that has Chatree</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>The Chatree Mill and Grade Control drilling provides an independent check against the Resource model in already mined portions of the Chatree System. These two independent checks support the reliability of the Resource Estimation in the mined areas for the current operation to date.</li> <li>External and internal reviews have deemed the data and the sampling techniques to be in line with industry standards and of sufficient quality to carry out a Mineral Resource Estimation.</li> </ul>

## SECTION 2: Not Applicable

## SECTION 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	<ul style="list-style-type: none"> <li>The Chatree Gold Mine has in place formal data validation procedures for data in the database with data being validated as close to the source as possible to ensure reliability and accuracy. All geological and field data is transferred from paper logs into excel and access database tables. The database administrator validates the data once it is imported into the company Access Database. Data entry errors are identified by data validation software and geological data entry errors are identified by cross checks by the project geologists.</li> </ul>
	<ul style="list-style-type: none"> <li>The exploration database is configured for optimal validation through constraints, library tables, triggers and stored procedures. Data that fails these rules is quarantined until it is corrected.</li> <li>Database is centrally managed by a Database Manager who is responsible for all aspects of data entry, validation, development, quality control and specialist queries. This is a standard suite of vigorous validation and checks for all data.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>The Competent Persons regularly visit site, or work on site. Procedural and reconciliation checks of the Resource Estimate against grade control, mining history are routinely done and any variations are investigated.</li> </ul>
	<ul style="list-style-type: none"> <li>This is not applicable because all competent people have routinely visited the site, including independent resource consultants</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>The confidence in the geological interpretation of the mineral deposit is high. The Chatree system has seen Resource estimations carried out for the past 10 years, and these resource estimations have been followed up with 10 years of mining. Both resource drilling data and mining data (pit mapping and grade control) are used together when building the frame work for the mineral deposits and their controls.</li> </ul>
	<ul style="list-style-type: none"> <li>Mineralisation and geological wireframes are created using these datasets.</li> </ul>
	<ul style="list-style-type: none"> <li>The geological data used to construct the geological model includes regional and detailed surface and pit mapping, drill holes logs, and interpretations from drilling cross sections.</li> <li>Mineralisation wire frames have been created based on gold and silver assays which are designed constrain the edges to the gold deposits.</li> <li>Although small variations in the Geological and Resource Interpretations do occur on a case by case basis, the effects of these variations do not significantly impact on the resource and are considered immaterial. However these localized impacts are continually monitored between grade control and resource definition and modified where required.</li> <li>Historical Mining Activity against the block model also confirms the close relationship between the current geological models and the global reconciliation between the <i>as mined</i> pits and the production history.</li> </ul>
	<p>The use of geology in guiding and controlling Mineral Resource estimation is partially applicable at Chatree. Oxidisation and broad stratigraphy types do control</p>

Criteria	Commentary																																						
	<p>the gross distribution of gold and silver mineralisation within the system. However at a local scale, mineralisation is controlled by structures that cross cut geology trends. A combination of broad scale geological wire frames and knowledge on mineralisation controls is utilised when creating the Resource Estimate.</p> <ul style="list-style-type: none"> <li>Regional faults are noted in the Chatree area, but their impact on resource risk is considered immaterial given the intensity of drilling.</li> <li>Post mineralisation dykes affect grade continuity within the Chatree System. These dykes vary in width from &lt;1 m to up to 8 metres in width. The dykes typically cross cut the mineralisation and create data blanks in the drill data and require consideration during the Resource estimation. Several reviews looking at whether to include or exclude data associated with dykes have been conducted during resource estimation. The comparisons do not show significant difference between each other. The current estimation treats all dykes and 0g/t gold and these are included in the estimation.</li> <li>Specific geological units within the Chatree system can be considered a preferred host. These are most notable in the A Prospect where the sedimentary unit hosts the majority of the ore.</li> </ul>																																						
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The gross dimensions of the Chatree Mineral Resource extend in continuous strike from the southern edge of the mining lease, through to the northern Q Prospect for 4.2 kilometres. The main trends can be split into several vein orientations meeting in the centre of the mining lease at A Prospect. The overall width of the resource is typically 40 to 80 metres depending on dip, but extends up to 160 metres in the A Prospect. The maximum Mineral Resource depth is 371 metres.</li> </ul>																																						
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The technique used in the estimation is MIK (multiple indicator kriging). In gold deposits where short scale variation in the sample grades is often extreme, the conventional approach to resource estimation has been found to produce unacceptable results. The main reason is that it is impossible to generate reliable estimates of the grades at the scale that will be used for ore selection in mining.</li> <li>MIK estimates within larger volumes called panels, the proportion of material that will be selected as ore using a certain selection strategy in mining. The grade of this proportion is also estimated. The larger volume of panel, which usually has the dimensions of the drill hole spacing, is used to ensure more reliable estimates of grade.</li> <li>In the MIK method this can be done through either excluding the potentially problematic sample grades from the calculation of the indicator statistics or using some alternative measure for the average grade of the highest class, such as the median as opposed to the mean. The determination of cutting or capping of extreme grades value or outlier was performed with the data analysis through the conditional statistic that allows generating a table of statistic for a predefined set of class thresholds. The upper grade bin for all domains was carefully analysed according to their spatial location and the difference between the mean and the median so determine the use of any of these or the mean grade of the upper bin excluding a set of outlier composites.</li> <li>A key component of the mineral resource estimation is the establishment of domains for the data to be modelled. Resource estimates will not produce results that reconcile with historical mining figures if the data is not domained according to the appropriate geological interpretation. Throughout the Chatree Gold Mine geological model genesis concepts that are considered to capture the geometry and theoretical distribution of mineralisation along with the site-based geological interpretation, which is consistent with regional and local geological information are utilised in the formulation of geological parameters and the subsequent development of a domain strategy.</li> <li>The interpolation parameters considered different search pass and different data used, given confidence level for classified the resource.</li> </ul> <table border="1" data-bbox="815 1158 1384 1358"> <thead> <tr> <th rowspan="2">Search Pass</th> <th colspan="3">Radii</th> <th rowspan="2">Minimum Data</th> <th rowspan="2">Minimum Octants</th> <th rowspan="2">Maximum Data</th> </tr> <tr> <th>X</th> <th>Y</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25</td> <td>25</td> <td>12</td> <td>16</td> <td>4</td> <td>48</td> </tr> <tr> <td>2</td> <td>37.5</td> <td>37.5</td> <td>18</td> <td>16</td> <td>4</td> <td>48</td> </tr> <tr> <td>3</td> <td>37.5</td> <td>37.5</td> <td>18</td> <td>8</td> <td>2</td> <td>48</td> </tr> <tr> <td>4</td> <td>70</td> <td>70</td> <td>30</td> <td>8</td> <td>2</td> <td>48</td> </tr> </tbody> </table>	Search Pass	Radii			Minimum Data	Minimum Octants	Maximum Data	X	Y	Z	1	25	25	12	16	4	48	2	37.5	37.5	18	16	4	48	3	37.5	37.5	18	8	2	48	4	70	70	30	8	2	48
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Criteria	Commentary
	<ul style="list-style-type: none"> <li>• The GS3 Software developed by Hellman and Schofield is designed to build model of the distribution of resources and generate estimates of resources in mineral deposits. Hellman and Schofield Pty Limited distribute the software under license.</li> <li>• The software is designed to provide the trained user with a set of tools to build models of the distribution of recoverable grade and tonnes for a single element such as gold within a mineral deposit. The mineralization may be partitioned into a maximum of 10 different primary mineralization styles (or geologic domains) each of which may have up to 8 secondary mineralization or alteration zones superimposed on them. This configuration is designed to allow the user the ability to model several mineralization styles controlled by structures and lithologies (primary domains) which are overprinted by several stages of oxidation and leaching defining oxidised, mixed and sulphide zones which are called secondary or sub-domains.</li> <li>• The software normally consists of five main components: <ul style="list-style-type: none"> <li>- Data Visualization and Selection</li> <li>- Univariate and Bivariate Statistics</li> <li>- Data Transformation</li> <li>- Variogram Analysis and Modelling</li> <li>- Multiple Indicator Kriging Modelling.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Reconciliation of MIK block model estimates against production at operating mines is an important measure of the predictive nature of the MIK block model for future production. Three sets of data are generally available, namely the MIK block model, the Grade Control As Mined figure and Production History (Mill) Data with stockpiled ore adjustments – the latter often referred to as ‘mill’ data. Chatree gold mine evaluates this data on routinely (by monthly, quarterly and year) and also for the operational history to obtain a level of confidence in MIK block model performance to actual production.</li> <li>• The Akara Mine Geology Department keeps ongoing records on MIK Block Model Performance against grade control. The overall history of the operation shows good reconciliation between the MIK Block Models and the Grade Control Models. Considering all Grade Control Predicted drilling data up until April 2012 was based on minesite Leachwell assays (not calibrated for recovery) the global reconciliation between MIK Models (assayed by conventional fire assay technique) is acceptable, with Grade Control Predicted coming within at a 95% reconciliation on tonnes, 93% on gold grade, and 88% on gold ounces.</li> <li>• The good global reconciliation between the Progressive MIK Models and the Grade Control Predicted Model is also supported by the overall mill processing history at Chatree Operation (accounting for stockpiles).</li> <li>• The combined overall Processed Ore and Stockpile (38.01Mt @ 1.37g/t Au for 1.672Moz) have also been compared against the current MIK Resource Estimate that lies within the current “As Mined” pit surface and also taking into account the variation in lower cut-off grade since commencement of operations. These variations have been estimated against the MIK Resource Estimate by a series of wireframes created that represent the different mining areas, their date mined and the cut-off grade used. Overall the current MIK Resource Estimate reconciles well against the Processed Ore and Stockpile history showing a 0.1% variation on Tonnes, a 3.0% variation on gold grade and a 3.1% variation on ounces.</li> </ul>
	<ul style="list-style-type: none"> <li>• Chatree Operation is a gold and silver producer and there are no by-products</li> </ul>
	<ul style="list-style-type: none"> <li>• Sulphide content is considered to be globally low and its effect on acid mine drainage is reviewed at the mining stage.</li> </ul>
	<ul style="list-style-type: none"> <li>• Resource model block size is related to drill pattern size. The block model is constructed with panels of 10m x 25m x 6m. Nominal drill spacing is 25 metres in the North, in the east the spacing is more variable (between 10 – 20 m).</li> </ul>
	<ul style="list-style-type: none"> <li>• These factors assume mining selectivity consistent with current practice, with ore selection based on 6 by 8 by 1.5 metre grade control sampling and minimum ore-blocking resolution of around 2 by 4 metres, by 3 metres vertical. Reliability of the selected variance adjustment factors is demonstrated by the generally reasonable comparison between grade control and model estimates.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Overall the Chatree mineralisation presents gold and silver as the main commodities for exploitation, however the silver values in Chatree deposit are usually low with very few high grade values and low correlation between gold and silver</li> <li>• The domains used for this estimate is based on the orientation of the mineralization. Mineralized domains assignment for resource modelling has been based on wireframe model of geological interpretations, veins, drill holes data, grade control data and pit geological map. Mineralization domains are divided according to their style and orientation of mineralization.</li> <li>• MIK modelled the grade thresholds and class means for each mineralised for each attribute and domain, indicator thresholds were defined using a consistent set of probability thresholds.</li> <li>• The highest indicator class represents only 1% of the data, and in a highly skewed distribution such as seen in the resource datasets, this indicator class can contain a disproportionate amount of the metal, so a small number of composites can have a disproportionate impact on the estimation of resources. Therefore a decision to limit the impact of the extreme grades value or outlier on the final estimates must often be made.</li> <li>• Validation of the block model involved going through each section (25m along strike) and plan (6m) to check that block grades matched that of the drill holes informing the block. The blocks were also checked to make sure they matched the mineralisation model.</li> <li>• In addition, validation is also carried out by reconciling the new block model with past mine production and grade control data for the same area where a sufficiently large area has been mined to be regarded as being representative of future production. The good global reconciliation between the Progressive MIK Models and the Grade Control Predicted Model is also supported by the overall mill processing history at Chatree Operation (accounting for stockpiles)</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• The estimated tonnes in the of resources use dry bulk density. The sample for bulk dry density are taken regular and systematic specific gravity measurements are taken on representative number of diamond drill core according to a formal protocol.</li> <li>• To calculate the moisture of the sample cores, the sample is weighed on a precision electronic balance, then is dried in an oven at 110 C, and again dry weight is measured by determining the moisture content of the relationship of the initial weight / final weight, similar calculation is performed for the RC samples where the sample is dried naturally. Determined moisture values have been used to analyse any bias in the results of chemical tests on the samples, which is not relevant to the calculation of Resource tonnage.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• The cut-off grade is based on the incremental cost of processing ore, using budget cost estimates for each pit. Recent work using a USD1600/oz gold price indicated that the average cut-off grade across all pits was approximately 0.32g/t and at a USD1400/oz gold price the cut-off grade was approximately 0.36 g/t.</li> <li>• The variability of the cut-off grade between 0.3 and 0.4 depending on location, metallurgy and cost variation justified a global resource cut-off grade at 0.3 on the assumption that average gold price variability over the past 3 years is approximately 1,550USD/oz.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Mining at Chatree is by open cut methods, utilising 200t and 100t class excavators. As such, the size of the blocks used in the resource estimation (10m x 25m x 6m) is appropriate to the style of mining being undertaken. It is assumed that detailed grade control drilling will be applied to ore/waste delineation processes using RC drilling at closer spacing.</li> <li>• This is consistent with current mining practises at Chatree</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Plant recovery varies depending on material type, pit and throughput rate. Historically, the Chatree plant has been able to achieve recoveries of over 85% Au. There is continuous test work performed to improve the knowledge about the variability of recovery in different lithologies.</li> <li>• The assumption of 85% based on historical performance is not necessarily and indicator of future performance and slightly lower recoveries at A Prospect are well mapped by geological domains, and grade distribution.</li> <li>• Detailed metallurgical reports have been completed for the majority of major prospects, and these results have been applied to the mineralisation domains when estimating Reserves.</li> </ul>

Criteria	Commentary
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Current Resource lie within a Mining Lease and consideration of Waste Dumps and Infrastructure has been made when estimating the lower cutoff. The Chatree Operation has completed various environmental impact statements in compliance with regulations for approval of Mining Leases.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>Regular and systematic specific gravity measurements are taken on representative number of diamond drill core according to a formal protocol. This data is included in the database. Densities average for Oxide (2.16), Transitional (2.40) and Fresh (2.62).</li> </ul>
	<ul style="list-style-type: none"> <li>Although density data requires ongoing revision on a case by case basis, the densities adopted for oxide, transitional and fresh remain valid density measurements considering the results of excellent global reconciliation between the new April 2013 MIK Model and historical Milled and Stockpiled records (a high proportion of which would represent oxide and transitional).</li> <li>Any significant variation in oxide or transitional density would be recognized in this comparison. Since the reconciliation remains a valid test of the current densities adopted for the resource estimate these will continue to be used for the global resource.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>Resource confidence levels were assigned to the current estimates on the basis of search pass, and a triangulation defining the limits of closer spaced sampling. The current estimation has used four search passes reflecting confidence on continuity of mineralisation style based on mining experience and geological continuity over the history of resource drilling.</li> <li>Panels in the current model estimates are assigned to confidence categories of 1, 2 and 3 which represent estimates of progressively lower confidence, Panels within the classification triangulation were assigned to confidence categories 1, 2 and 3 on the basis of search pass, and all panels outside the classification triangulation were classified as category 3. For public release of the estimates, estimates for categories 1 reported as Measured, categories 2 reported as Indicated and category 3 panels reported as Inferred.</li> </ul>
	<ul style="list-style-type: none"> <li>The confidence in a mineral resource estimate was judged on quality of input data assay, mineralisation/geological continuity along strike and down dip, data density and mining experience of similar deposits. The author considers that the reliability of resource is demonstrated by the generally reasonable comparison between grade control and model estimates.</li> </ul>
	<ul style="list-style-type: none"> <li>The authors consider that the reliability of resource is confirmed by the reasonable comparison between grade control and model estimates</li> <li>the authors of the current estimation are competent persons of the company who regard the estimation procedure, quality data, data assay, mineralisation/geological continuity along strike and down dip, data density are considered appropriate for the style of mineralization of deposit that has Chatree.</li> </ul>
<b>Audits or reviews.</b>	<ul style="list-style-type: none"> <li>In the past Hellman and Schofield (H&amp;S) have carried out resource estimations at Chatree from pre-feasibility in 1999 until the 2010 mineral resource. In 2011 the resource estimations were carried out on site and audited by H&amp;S. The current Mineral Resource estimate has been audited by JJon Abbott of MPR Geological Consultants Pty Ltd. This Table 1 forms a small part of a more extensive Mineral Resource Report for Chatree, this report form part of the company's internal documentation and is provided to independent consultants during their audits.</li> <li>Chatree Gold Mining is routinely visited by external competent persons who review and discuss all procedure of sampling techniques, geological interpretation, parameter of the estimation, audits and reviews.</li> <li>The results of such audits conclude that procedures and data used to estimate the Mineral Resource are appropriate for the style of mineralization found at Chatree and consistent with other similar operations elsewhere.</li> </ul>

Criteria	Commentary
<p><b>Discussion of relative accuracy/confidence</b></p>	<ul style="list-style-type: none"> <li>The Chatree Operation has been actively mining for the past 10 years. An appropriate way to gauge the relative accuracy of the current Mineral Resource estimate and its confidence is to review its performance looking back in the areas already mined. Reconciliation of MIK block model estimates against production at operating mines is an important measure of the predictive nature of the MIK block model for future production. Three sets of data are generally available, namely the MIK block model, the Grade Control As Mined figure and Production History (Mill) Data with stockpiled ore adjustments – the latter often referred to as ‘mill’ data. Chatree gold mine evaluates this data routinely (by monthly, quarterly and year) and also for the operational history to obtain a level of confidence in MIK block model performance to actual production.</li> <li>The Akara Mine Geology Department keeps ongoing records on MIK Block Model Performance against grade control. The overall history of the operation shows good reconciliation between the MIK Block Models and the Grade Control Models. Considering all Grade Control Predicted drilling data up until April 2012 was based on minesite Leachwell assays (not calibrated for recovery) the global reconciliation between MIK Models (assayed by conventional fire assay technique) is acceptable, with Grade Control Predicted coming within at a 95% reconciliation on tonnes, 93% on gold grade, and 88% on gold ounces.</li> <li>The good global reconciliation between the Progressive MIK Models and the Grade Control Predicted Model is also supported by the overall mill processing history at Chatree Operation (accounting for stockpiles).</li> <li>The combined overall Processed Ore and Stockpile (38.01Mt @ 1.37g/t Au for 1.672Moz) have also been compared against the current MIK Resource Estimate that lies within the current “As Mined” pit surface and also taking into account the variation in lower cut-off grade since commencement of operations. These variations have been estimated against the MIK Resource Estimate by a series of wireframes created that represent the different mining areas, their date mined and the cut-off grade used. Overall the current MIK Resource Estimate reconciles well against the Processed Ore and Stockpile history showing a 0.1% variation on Tonnes, a 3.0% variation on gold grade and a 3.1% variation on ounces.</li> </ul>
	<ul style="list-style-type: none"> <li>The current estimate is an estimate on global and local, based on a statistical and geostatistical analysis, estimated by multiple indicator krigging (MIK) approach as in the previous estimates, the confidence in a mineral resource estimate was judged on quality of input data assay, mineralisation/geological continuity along strike and down dip, data density and mining experience of similar deposits. The author considers that the reliability of resource is demonstrated by the generally reasonable comparison between grade control and model estimates.</li> <li>The Mineral Resource estimate is considered to be of sufficient local confidence to allow mine planning studies to be completed. The estimate has been classified as a combination of Measured, Indicated and Inferred, with the Measured and Indicated Resource of a sufficient local confidence to allow optimisation studies, pit designs and mine scheduling.</li> </ul>
	<ul style="list-style-type: none"> <li>As mentioned above, at the time of estimation, the combined overall Processed Ore and Stockpile (38.01Mt @ 1.37g/t Au for 1.672Moz) have also been compared against the current MIK Resource Estimate that lies within the current “As Mined” pit surface and also taking into account the variation in lower cut-off grade since commencement of operations. Overall the current MIK Resource Estimate reconciles well against the Processed Ore and Stockpile history showing a 0.1% variation on Tonnes, a 3.0% variation on gold grade and a 3.1% variation on ounces.</li> </ul>

#### SECTION 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
<b>Mineral Resources Estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>The mineral resource estimate is based on the April 2013 MIK resource model developed by the Kingsgate Group. The methodology was reviewed by MPR Geological Consultants Pty Ltd (MPR). The Chatree Gold Mine Ore Reserve Estimate is derived from detailed pit designs based on the output of Whittle optimizations run on the April Resource Model compiled by Kingsgate's Thai exploration subsidiary, Issara Mining ("Issara").</li> <li>The Chatree Mineral Resource estimate is inclusive of the April 2013 Ore Reserves.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The competent person is based on site at Chatree Gold Mine.</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>The Chatree Gold Mine has been operating for 10 years and is well established.</li> <li>A feasibility study was conducted in 2005 for the Chatree North leases and that is basis of the current mine plan.</li> <li>When the resource model is updated with additional drilling, the mining designs and plans are reviewed and financial evaluations applied.</li> </ul>
<b>Cut-off Grade</b>	<ul style="list-style-type: none"> <li>The cut-off grade used to report reserves is derived from the incremental cost of processing ore, including the cost of re-handle from stockpiles.</li> <li>A grade of 0.35g/t Au has been used for Ore Reserve Estimate.</li> </ul>
<b>Mining Factors</b>	<ul style="list-style-type: none"> <li>Detailed pit designs have been completed for all pits at Chatree, based on the April 2013 Resource Model from Issara.</li> <li>The open pits have been designed following pit slope recommendations of BFP Consultants Pty Ltd for the Chatree North Feasibility Study.</li> <li>Mining equipment and bench height selection is appropriate for the ore body. Both ore and waste are blasted on 9m benches then mined in 3m flitches by 100t and 180t class excavators. Grade control is done by reverse circulation drilling on 18m benches ahead of drilling and blasting.</li> <li>Open pits have been designed with 2 way haul roads except for the final benches, which have been designed with one way access to reduce stripping requirements.</li> <li>As the model is an MIK model, mining dilution and recovery factors are not required.</li> <li>Open pit cutbacks have been designed with a minimum bench width of 50m.</li> <li>Inferred Mineral Resources are excluded from the pit optimizations and reserves and counted as zero grade.</li> <li>All required infrastructure is already in place.</li> </ul>
<b>Metallurgical Factors / Recovery Model</b>	<ul style="list-style-type: none"> <li>Chatree Gold Mine has been running for 10 years and successfully extracts gold and silver from ore by a CIL/CIP process.</li> <li>The recovery models for Gold and Silver used in the estimation of the Chatree Gold Mine reserves are variable recovery models based on head grade. The algorithms used were derived from test work performed over the full range of head grades from different geographic areas as well as historical operational data.</li> <li>The average recovery for gold metal for the remaining reserves is 80.5% and for silver metal 43.6%.</li> <li>There are minor amounts of carbonaceous ore within the ore body and test work has been performed to determine the impact on recovery. The results of this test work have been incorporated into the overall recovery model for the ore body.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>Chatree gold mine operates under an approved Environmental and Health Impact Assessment which is regularly audited by Thai government officials. The EHIA covers the storage of tailings from the processing plant and waste rock.</li> <li>The mine currently has a plastic lined tailings storage facility for 62M tonnes of ore. This is 7M tones below the current remaining ore reserve and provision of a further facility will be required towards the end of the mine life.</li> <li>Waste is characterized into potentially acid forming and non-acid forming and placed into dumps in accordance with the EHIA.</li> <li>The site conditions are that no water is to be discharged from the mining lease.</li> </ul>

Criteria	Commentary
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>• Chatree Gold Mine is supplied with electricity from the Thai national grid and access to Bangkok is by sealed highways.</li> <li>• All land within the mining lease is owned by Kingsgate's Thai subsidiary, Akara Mining Limited. Land surrounding the project is generally freehold title, and as such negotiations are conducted with individual land holders to obtain access to land.</li> <li>• Labour is sourced from local communities surrounding the operation. Over 90% of the staff employed on site are Thai Nationals. Akara Mining does not provide any on-site accommodation, with all staff living within the local communities.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>• Capital costs included in the NPV calculation for the project include allowances for plant upgrades to improve throughput and also construction of the tails storage facility as well as sustaining capital for all aspects of the mine.</li> <li>• The operating costs used in the Whittle optimizations, and to determine the cut of grade, are based on the current contract mining unit rates and 12 month historical costs, with adjustments made for expected price movements of major consumables e.g. electrical power.</li> <li>• An exchange rate of 30 Baht / USD was assumed for the Whittle optimisations and NPV calculations based on the last two years historical data.</li> <li>• Transportation charges are based on historical averages with adjustments made for expected price movements.</li> <li>• Treatment charges are based on current operating costs.</li> <li>• The royalty paid to the Thai government for gold production is based on a sliding scale according to the prevailing gold price. <ul style="list-style-type: none"> <li>(1) two point five per cent of the price of gold per gram for the price not exceeding Baht Four Hundred;</li> <li>(2) five per cent of the price of gold per gram for the part in excess of Baht Four Hundred but not exceeding Baht Six Hundred;</li> <li>(3) ten per cent of the gold per gram for the part in excess of Baht Six Hundred but not exceeding Baht One Thousand;</li> <li>(4) fifteen per cent of the price of gold per gram for the part in excess of Baht One Thousand but not exceeding Baht One Thousand Five Hundred;</li> <li>(5) twenty per cent of the price of gold per gram for the part in excess of Baht One Thousand Five Hundred.</li> </ul> </li> <li>• The royalty paid to the Thai government for silver production is 10%.</li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>• A gold price of USD1480/troy oz and a silver price of USD26/troy oz were used to calculate the remaining reserves. The company has previously used a three year rolling average commodity price which would have been USD1500/oz for gold and USD29.5/oz for silver but due to the volatile commodity prices chose a more conservative estimate that equated to spot price at the time of the estimate.</li> </ul>
<b>Market Assessment</b>	<ul style="list-style-type: none"> <li>• Production from the Chatree Gold Mine is sold at spot market prices, with no hedging agreements currently in place.</li> <li>• The currently life of mine plan indicates that the mine can produce between 130k Oz Au and 140k Oz Au per year, and an average of 610k Oz Ag per year, over the current remaining 12 year mine life.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• The project NPV was calculated using the site two year budget costs from July 2013 to June 2015 and applied to the Life of Mine Plan, with adjustments for expected cost movements over time (escalation).</li> <li>• The project NPV was positive and calculated using a discount rate of 7.5%, a gold price of US\$1,480/oz with a remaining mine life of 12 years.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• Chatree gold mine has very close working relationships with the communities surrounding the project, with a number of funds set up to provide services and support.</li> </ul>

Criteria	Commentary
Other Risks	<ul style="list-style-type: none"> <li>• There are no significant naturally occurring risks to the project. A major flooding event in Thailand in 2011 did not impact the operation.</li> </ul> <p><b>Material Legal and Marketing Agreements</b></p> <ul style="list-style-type: none"> <li>• Output from the Chatree Gold Mine is sold at spot market prices with no hedging agreements currently in place.</li> </ul> <p><b>Government agreements and approvals</b></p> <ul style="list-style-type: none"> <li>• The quoted remaining reserves include pits that require Government approvals to relocate public roads and extend mining leases before those reserves can be fully exploited.</li> <li>• At this point in time there appears to be no reason for approvals to be not forth coming in time to exploit the affected reserves.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>• Resources classified as “Measured” that fall within the designed pit are classified as “Proven” reserves. “Indicated” resources are classified as “Probable” reserves.</li> </ul>
Audits or Reviews	<ul style="list-style-type: none"> <li>• There have been no formal external audits of the Ore Reserve estimate. The Ore Reserve estimate was peer reviewed internally within Kingsgate.</li> </ul>
Accuracy / Confidence	<ul style="list-style-type: none"> <li>• Long term historical reconciliation of the Chatree resource model to mill production shows a high level of confidence the reported contained metal.</li> <li>• The reconciliation carried out is global in nature as ore from different pits and stockpiles is blended in the mill feed.</li> </ul>