



Manas Resources Limited  
ACN 128 042 606

30 Ledger Road  
Balcatta  
AUSTRALIA 6021

P +618 9240 7717  
F +618 9240 2406

W [www.manasresources.com](http://www.manasresources.com)  
E [ross@manasresources.com](mailto:ross@manasresources.com)

14 November 2011

## ASX RELEASE / MEDIA RELEASE

**PRELIMINARY SHAMBESAI PIT OPTIMISATION SHOW FREE CASHFLOWS MORE THAN US\$190M  
PROPOSED GOLD PRODUCTION INCREASED TO 40,000 OUNCES PER ANNUM AVERAGE**

Manas Resources Limited (**ASX-MSR**) is pleased to report the updated results of the mining evaluation and pit optimisation review on its recently upgraded 100%-owned Shambesai Gold Project in the Kyrgyz Republic, Central Asia.

### HIGHLIGHTS

- ◆ Revised pit optimisation studies at Shambesai demonstrate potential for net cash flows of up to **US\$190M over initial five years** by producing more than **200,000 ounces of gold** (EBITDA at US\$1,500 gold price)
- ◆ Highlights of the revised mining evaluation and pit optimisation study include -
  - ◇ Estimated net cash flows attributable to Indicated oxide Mineral Resource material only totals more than **US\$137M over five years** (EBITDA at US\$1,500 gold price), with a further possible **US\$53M** from Inferred oxide Mineral Resource
  - ◇ The current Probable Reserve of oxide material is estimated to be **180,000 ounces** over the five-year mine-life with a potential of a further **40,000 ounces** from currently Inferred oxide material that is contained within the pit shell
  - ◇ Production is projected to peak at **50,000 ounces of gold per annum in year 3** and **average 40,000 ounces per annum for the five years** of the projected mine life from the Indicated and Inferred oxides
  - ◇ More than **75,000 ounces** of gold contained within sulphide material stockpiled during oxide mining is not included in the cash flow estimates
  - ◇ Cash costs are estimated at **US\$370 per ounce** for the first four years, **US\$465 per ounce** for life-of-mine
- ◆ The Feasibility Study including final pit optimisation on high-value near surface oxides to be completed in December 2011
- ◆ High potential remains for increased throughput, increased cash flows and increased mine life by further oxide ore discoveries and future sulphide ore treatment

**“We are extremely pleased with the updated cash flow numbers from the pit optimisation study which, when compared to the November 2010 Scoping Study, demonstrate that we can expect a much improved**

**production rate and subsequent improved cash flows for the Shambesai shallow oxides alone,”** Manas Resources Managing Director Stephen Ross said.

“Despite this conservative approach to the mining plan focusing on the near-surface oxide material only, project cash flows from the updated pit optimisation work have almost doubled, plus we can expect very high initial returns at a medium-term gold price of US\$1,500 per ounce of gold.

“We look forward to the granting of our mining licence and an early move into the implementation phase of the Shambesai Gold Project.”

In September, Shambesai was upgraded to an Indicated and Inferred Mineral Resource of **11.6 million tonnes at 2.1 g/t gold for 766,000 ounces of gold** (0.5g/t gold cut-off).

The shallow high-grade oxide-portion of the Indicated and Inferred Mineral Resource, which occurs from surface, increased to approximately 300,000 ounces occurring at an average grade of 3.6 g/t gold from a total oxide resource of **460,000 ounces of gold at 2.2 g/t gold**.

The Feasibility Study currently being prepared in conjunction with CSA Global and Como Engineering is scheduled for completion in December 2011 and will incorporate the September 2011 Mineral Resource, the recently completed preliminary mining evaluation and pit optimisation study, basic engineering for the proposed process plant, and updated capital and operating costs. The shallow high-grade oxide-portion of the Indicated and Inferred Mineral Resource is the focus for the Feasibility Study.

The preliminary mining evaluation and pit optimisation study concentrated on economically recovering material from the high-margin, high-grade oxide Indicated and Inferred Mineral Resource consisting of 2.6Mt at 3.6 g/t gold for 300,000 ounces of gold (2.0 g/t cut off) from surface. A base-case pit optimisation study estimated the pit shell to contain a **Probable Reserve of 1.86Mt at 3.0 g/t gold for 180,000 ounces**. An additional 0.70Mt at 1.8 g/t gold for 40,000 ounces of Inferred oxide material is also contained within the pit shell, demonstrating potential for a total Mineral Inventory of **2.6Mt at 2.7g/t gold for 220,000 ounces** of mineable material. This Inferred oxide material will be the subject of a winter drilling campaign with the aim of upgrading to Indicated.

Average gold production is projected to be **40,000 ounces per annum** for five years, assuming treatment of Indicated and Inferred oxide material falling within the initial planned Stage 1 Pit. These numbers which are a result of increased throughput of ore up to 600,000 tonnes per annum (500,000 tonnes per annum average) are being refined and incorporated in the Feasibility Study. Please see Appendix 1 for a full breakdown of the parameters of the pit optimisation and economic evaluation work.

Based on the study, the estimated EBITDA is more than **US\$190M over the five-year life of the oxide pit**, assuming treatment of Indicated and Inferred oxide mineralisation currently contained within the pit boundary using a US\$1,500 gold price (US\$137M attributable to Indicated material and US\$53M attributable to Inferred material). Cash costs which reflect the increased throughput are estimated to average **US\$465 per ounce** of gold for the full five-year mine life, with cash costs for the first four years of production averaging **US\$370 per ounce** of gold. Capital costs are currently estimated at **US\$19M** through to the first year of production and US\$24M for the 5-year life-of-mine.

These figures compare favourably to the life-of-mine EBITDA from the November 2010 Scoping Study (ASX Release 16 November 2010) of US\$118M at a US\$1,000 gold price including Indicated and Inferred Mineral Resources and some sulphide ore treatment. The Scoping Study also contemplated a lower throughput of ore at a higher resource grade for an average production of 30,000 ounces per annum over a five-year mine life.

This preliminary mining evaluation and pit optimisation study, which will be incorporated in the Definitive Feasibility Study, has demonstrated the economic viability of the Shambesai Stage 1 Project. The substantial increase in oxide Mineral Resources announced in September 2011 provides a significant increase to the projected return on the Shambesai project.

Development of the oxide open pit will provide access to deeper oxide and sulphide zones, thus potentially increasing mine life and current cash flows. Sulphide material which overlies oxide reserves in the optimised pit contains an estimated **75,000 ounces** of contained gold (Indicated material only). This material will be mined with the oxides and stockpiled for later treatment. Potential cash flows from the sulphides are not included in current cash flow estimates.

Once a sulphide treatment route has been finalised, a larger pit to access deeper high-grade oxide and sulphide mineralisation may be considered. The initial optimisation results indicate that the deeper high-grade portions of the Shambesai sulphides in conjunction with deeper oxide material has the potential to be economically mined in a larger open pit which could generate significant additional future cash flow and longer mine life.

Future economic and technical evaluations will assess the viability of treating the stockpiled sulphide material, mining deeper oxide and sulphide zones at Shambesai and the viability of the nearby 485,000-ounce Obdilla deposit, plus future discoveries made within Manas' 100%-owned 4,200km<sup>2</sup> South Kyrgyz Gold Project.

## **Basis of Mineral Inventory Calculation**

Although the Feasibility Study is incomplete, it is at a very advanced stage of completion. Consequently, in calculating the Probable Reserve, due consideration has been given to diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

- ♦ Mining and Processing costs estimates were developed by Manas Resources reflecting Kyrgyz wage cost structures and Aug 2011 pricing for goods and services. Capital cost estimates were developed based on an estimate prepared by Como Engineers in March 2011 based on typical Australian costs for equipment and construction. This estimate was updated in September 2011 by Manas Resources with local wage rates and imported Chinese sourced equipment. The accuracy of these estimates is +/-25%
- ♦ Metallurgical recoveries for vat and heap leaching were determined from testwork carried out by a number of independent laboratories in Australia and Kyrgyzstan. Metallurgical parameters for sulphide leaching were assessed from preliminary work carried out by AMMTEC Pty Ltd and HRL Testing Pty Ltd in Australia
- ♦ A two stage leach flow sheet for high grade ore incorporating vat and heap leaching is planned to minimise operational losses. High grade oxide recovery has been estimated using a fixed tailing of 0.9g/t in the vat leach and 0.1 g/ t in the heap leach. Operational gold loss from treatment of high grade ore is estimated to be 3%. The average metallurgical recovery for high grade oxide ores is estimated at 91%.
- ♦ Low grade oxide treatment will be on the heap leach. Gold recovery has been based on a fixed tailings grade of 0.1 g/t to reflect leach residues observed in the testwork with additional losses of 7% applied to heap leached material to account for operational inefficiencies. This gives an average recovery of 82%.
- ♦ Mining dilution of 5% was applied to oxide resources.
- ♦ Mining losses of low grade oxide ores is considered to be minimal due to overlying sulphides.
- ♦ High grade oxide recovery was reduced from results demonstrated in testwork to compensate for the possibility of lower recovery from sulphide dilution.
- ♦ A geological block model was developed for the Shambesai deposit in September 2011 by CSA Global. A resource estimate was prepared by CSA Global. The ASX release issued on 27 September 2011 provides the parameters for this estimate.
- ♦ A pit optimisation using Whittle software and cost information provided by Manas Resources was carried out to develop economic pit shells.
- ♦ A gold price of US\$1500 was assumed for all pit optimisation and economic evaluation work. Sensitivity analysis was carried out at higher and lower prices to determine the impact on the optimum pit shell
- ♦ A maximum overall pit wall slope of 50 degrees was adopted after a preliminary assessment of geotechnical drilling results. The sensitivity of the optimisation to slopes between 45 and 55 degrees was also assessed. The final pit slope will be determined after a full geotechnical analysis
- ♦ Preliminary pit designs were prepared to determine practical pit shapes and overall slopes with ramp access. The resource model was then re-optimised using the revised slope angles to check that the designs were conforming to the economic parameters.
- ♦ Only processing of the oxide Mineral Resource was considered in the pit optimisation and economic evaluation. A scenario including sulphide processing was developed to identify the ultimate pit boundary and to provide an indication of the potential sulphide mineralisation.

- ◆ The optimisations were carried out incorporating both Indicated and Inferred Oxide Mineral Resources to determine the potential viability of the project. A separate calculation was carried out to ensure the shells were economically viable based only on the Indicated Resources.
- ◆ A series of three cutbacks were developed to allow development of a preliminary annual production schedule for the mine and process plant. The schedule developed for this cash flow estimate is not necessarily that which will be adopted for the feasibility or detailed design and is subject to further engineering development
- ◆ The cash flow estimate provided is intended to be a guide as to the economic potential of the Shambesai Deposit. The accuracy of the cash flow estimate is uncertain because of the many underlying assumptions and cannot be relied on for valuing the deposit.

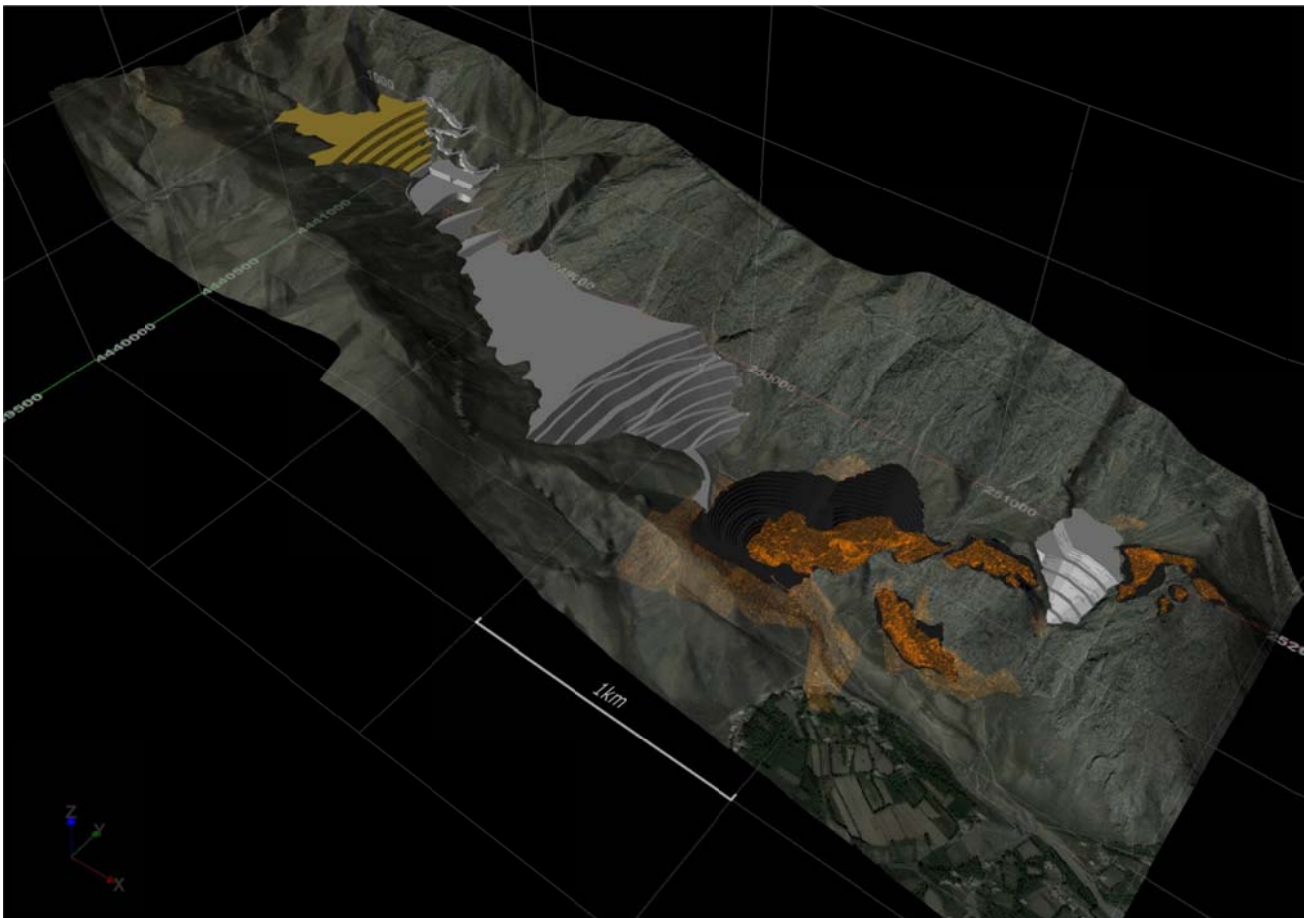


Figure 1 – Shambesai Mineral Inventory in preliminary pit shell

**Table 1 -Mineral Inventory Summary**

Contained gold in pit optimisation of final oxide pit shell (Ounces)								
Type	Grade	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide	High Grade	Indicated	26,410	32,988	46,211	42,513	9,657	157,779
Oxide	Low Grade	Indicated	1,690	4,734	7,021	4,863	4,680	22,987
Oxide	Total	Indicated	28,100	37,722	53,232	47,376	14,337	180,766
Sulphide	High Grade	Indicated	5,412	8,007	25,949	14,936	8,600	62,904
Sulphide	Low Grade	Indicated	456	1,007	3,137	3,422	4,642	12,664
Sulphide	Total	Indicated	5,868	9,014	29,086	18,358	13,242	75,568
Additional contained gold in pit optimisation of final oxide pit shell (Ounces)								
Type	Grade	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide	High Grade	Inferred	5,997	6,178	146	2,576	10,984	25,880
Oxide	Low Grade	Inferred	1,908	1,893	1,116	1,404	8,159	14,479
Oxide	Total	Inferred	7,904	8,071	1,261	3,979	19,143	40,359
Sulphide	High Grade	Inferred	476	72	33	2,428	2,418	5,427
Sulphide	Low Grade	Inferred	416	57	91	837	6,490	7,891
Sulphide	Total	Inferred	892	128	124	3,265	8,908	13,319
Proportion of gold which is in the Indicated category in the final oxide pit shell								
Type		Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide		Indicated	78%	82%	98%	92%	43%	82%
Sulphide		Indicated	87%	99%	100%	85%	60%	85%
Overall		Indicated	79%	85%	98%	90%	50%	83%
Tonnage results in pit optimisation of final oxide pit shell ('000 tonnes)								
Type	Grade	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide	High Grade	Indicated	166	234	314	344	106	1,163
Oxide	Low Grade	Indicated	40	114	235	169	141	699
Oxide	Total	Indicated	206	348	549	512	247	1,862
Sulphide	High Grade	Indicated	45	61	218	132	85	540
Sulphide	Low Grade	Indicated	10	21	72	85	116	303
Sulphide	Total	Indicated	55	81	290	218	200	844
Note: Dilution Factors have been applied								
Additional tonnages in pit optimisation of final oxide pit shell ('000 tonnes)								
Type	Grade	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide	High Grade	Inferred	45	47	2	29	130	253
Oxide	Low Grade	Inferred	49	55	49	59	238	450
Oxide	Total	Inferred	94	102	51	88	368	703
Sulphide	High Grade	Inferred	6	1	0	27	29	62
Sulphide	Low Grade	Inferred	10	1	5	23	164	203
Sulphide	Total	Inferred	16	2	5	49	193	266
Note: Dilution Factors have been applied								



Grade of pit optimisation results of final oxide pit shell (g/t)								
Type	Grade	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide	High Grade	Indicated	4.9	4.4	4.6	3.8	2.8	4.2
Oxide	Low Grade	Indicated	1.3	1.3	0.9	0.9	1.0	1.0
Oxide	Total	Indicated	4.2	3.4	3.0	2.9	1.8	3.0
Sulphide	High Grade	Indicated	3.7	4.1	3.7	3.5	3.2	3.6
Sulphide	Low Grade	Indicated	1.5	1.5	1.3	1.2	1.2	1.3
Sulphide	Total	Indicated	3.3	3.5	3.1	2.6	2.1	2.8
Note: Dilution Factors have been applied								
Grade of additional material in pit optimisation of final oxide pit shell (g/t)								
Type	Grade	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Oxide	High Grade	Inferred	4.1	4.0	2.6	2.8	2.6	3.2
Oxide	Low Grade	Inferred	1.2	1.1	0.7	0.7	1.1	1.0
Oxide	Total	Inferred	2.6	2.5	0.8	1.4	1.6	1.8
Sulphide	High Grade	Inferred	2.6	2.4	2.3	2.8	2.6	2.7
Sulphide	Low Grade	Inferred	1.2	1.3	0.6	1.2	1.2	1.2
Sulphide	Total	Inferred	1.7	1.7	0.8	2.1	1.4	1.6
Note: Dilution Factors have been applied								

General Notes to the Reserve Table

1. High Grade refers to a grade greater than 2.0 g/t
2. Low Grade refers to a grade less than 2.0 g/t
3. Rounding errors may mean row and column totals may not be correct

## Cash Flow Estimate Basis

The following cash flow summary has been estimated for the Mineral Inventory of the final oxide pit shell (developed during a pit optimisation process) and includes both Indicated and Inferred Mineral Resources falling within the pit boundary. The final oxide pit will form the basis for the Feasibility Study and Mine Design.

The net cash flow (EBITDA after capital expenses) for the total Inferred and Indicated oxide in the mineral inventory was estimated to be US\$190M. A separate estimation has been made to determine the cash flow for the Indicated Mineral Resource only contained in the final oxide pit at US\$137M. The Inferred Mineral Resource has been reported in this mineral inventory and cash flow estimate as Manas Resources believes there is a high likelihood of this material to be upgraded to Indicated status once the scheduled winter drilling program is complete. Furthermore, the Inferred material forms a relatively small portion of total project value and the final oxide pit is still economic without inclusion of this material

**Table 2 - Cash Flow Estimate Summary**
**Treating Indicated and Inferred oxides in the mineral inventory for the final oxide pit**

		Y0	Y1	Y2	Y3	Y4	Y5
<b>Processing Recovery<sup>1</sup></b>							
High Grade	%		93%	92%	93%	92%	92%
Low Grade	%		86%	85%	83%	82%	82%
Sulphide <sup>2</sup>	%		0%	0%	0%	0%	0%
<b>Gold Production</b>	<b>Oz</b>		<b>33,000</b>	<b>42,000</b>	<b>50,000</b>	<b>47,000</b>	<b>34,000</b>
<b>Net Revenue<sup>3</sup></b>	<b>M\$</b>		<b>46</b>	<b>58</b>	<b>69</b>	<b>65</b>	<b>47</b>
Total Site Operating Costs	M\$		12	16	19	17	31
EBITDA	M\$		34	42	50	47	16
Cumulative EBITDA	M\$		34	77	126	173	190
Capital	M\$	19	1	0	3	0	0
Net Cash Flow per annum	M\$	-19	33	42	46	47	16
<b>Cumulative Cash Flow</b>	<b>M\$</b>	<b>-19</b>	<b>14</b>	<b>56</b>	<b>103</b>	<b>150</b>	<b>167</b>
Cash Costs	US\$/oz		349	374	388	370	909

**Notes to the Cash flow table**

1. The metallurgical recoveries are average figures for the year and dependant on head the head grade and other metallurgical factors
2. Treatment of sulphide ore is not included in the Cash Flow
3. Net revenue is the recovered gold multiplied by the gold price less royalty, treatment charges and refining losses
4. Earnings before taxation and depreciation allowances

Details of the Manas Resources 100% owned Kyrgyz Gold Projects can be found at the Company's comprehensive website [www.manasresources.com](http://www.manasresources.com)

For further information -

Stephen Ross  
 Managing Director  
**Manas Resources Limited**  
 Telephone +618 9240 7717  
[www.manasresources.com](http://www.manasresources.com)

Nathan Ryan  
 Investor Relations  
**NWR Communications**  
 +613 9622 2159  
[nathan.ryan@nwrcommunications.com.au](mailto:nathan.ryan@nwrcommunications.com.au)



## Manas Resources Limited - South Kyrgyz Gold Project

### Company Overview

Manas Resources Limited is an Australian-based company focused on exploring and developing its 100% owned gold projects on the Tien Shan gold belt in the Kyrgyz Republic. The Company has a Mineral Resource base of 1,251,000 ounces of gold at the Obdilla and Shambesai prospects, which are only 7km apart.

The main focus for Manas is exploring for Carlin-style gold deposits on seven projects collectively called the South Kyrgyz Gold Project covering more than 4,200km<sup>2</sup>, with Manas technical staff working on defining resources and developing these gold projects. A feasibility study is currently being completed for Shambesai.

**Table 3 - Summary of Mineral Resource Estimates**  
 Reported according to JORC Category and Deposit

Deposit	Indicated Category			Inferred Category			Total		
	Tonnes Mt	Grade g/t	Ounces	Tonnes Mt	Grade g/t	Ounces	Tonnes Mt	Grade g/t	Ounces
<b>Shambesai</b>	5.3	2.4	411,000	6.3	1.8	355,000	11.6	2.1	766,000
<b>Obdilla</b>	6.3	1.8	353,000	2.9	1.4	132,000	9.2	1.6	485,000
<b>Total</b>	<b>11.6</b>	<b>2.1</b>	<b>764,000</b>	<b>9.2</b>	<b>1.7</b>	<b>487,000</b>	<b>20.8</b>	<b>1.9</b>	<b>1,251,000</b>

Shambesai is reported at a gold cut-off grade of 0.5g/t gold.

Obdilla is reported at a gold cut-off grade of 1.0g/t gold.

The Indicated Mineral Resources reported above for Shambesai are inclusive of those Mineral Resources modified to produce the Probable Ore Reserves referred to in this report.

**COMPETENT PERSONS STATEMENT**

The information in this report that relates to Ore Reserves, and the Technical and Financial Information for the Shambesai Project is based on information compiled by Mr Philip Reese. Mr Reese is the Chief Operations Officer of Manas Resources Limited. Mr Reese is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Reese consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

The information in this report that relates to Mineral Resources and Exploration Results is based on information compiled by Mr Stephen Ross. Mr Ross is the Managing Director of Manas Resources Limited. Mr Ross is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Ross consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

Statements regarding Manas Resources' plans with respect to its mineral properties are forward-looking statements. There can be no assurance that Manas Resources' plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Manas Resources' will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Manas Resources' mineral properties.

Notes pertaining to Obdilla resource estimate which was calculated in December 2007 can be found at [www.manasresources.com](http://www.manasresources.com) and in the Manas Resources Limited prospectus dated May 2008.