



MILLENNIUM

MINERALS LIMITED

ABN 85 003 257 556

## December 2009 Quarterly Report

---

### HIGHLIGHTS

- **Otways and Little Wonder gold deposits add a further 49,900 ounces to the Nullagine Gold Project Mineral Resource estimate.**
- **The global Mineral Resource estimate at Nullagine now stands at 28.9 Mt at 1.24 g/t Au for 1.15 million ounces gold.**
- **Significant new gold results from recently completed diamond core drilling include:**
  - **17 metres at 6.12 g/t Au from 16 metres including 6 metres at 15.08 g/t Au**
  - **16 metres at 3.02 g/t Au from 24 metres including 2 metres at 12.70 g/t Au**
  - **10 metres at 2.48 g/t Au from 20 metres**
  - **10 metres at 1.69 g/t Au from 20 metres**
  - **15 metres at 1.05 g/t Au from 18 metres**
- **An aggressive exploration programme is to commence during February 2010 to convert additional Inferred Resources to Measured and Indicated Resources.**
- **Senior operational management recruitment under way**
- **Mintrex and BEC Electrical selected for EPCM**
- **Scoping level study completed on potential heap leach project**

## CORPORATE

- **Cash position** as at 31 December circa A\$2.6 million.
- **Placement and Rights Issue**  
On 19 November the Company announced a placement of 60,777,590 shares at 4.5 cents to sophisticated investors to raise \$2.735 M. At the same time a 1:4 non-renounceable rights issue (also at 4.5 cents) was announced to issue 116,490,381 shares with a 1 for 2 three year option exercisable at 7.5 cents to raise approximately \$5.85 M. On successful completion of the rights issue timed for 11 February, 2010 Millennium will have 582,451,905 shares on issue. Investors in the placement will be able to participate in the rights issue and shareholders have been provided the opportunity to subscribe for shortfall shares and options.
- **Key Management Roles**  
Recruitment for the key site operational roles of Resident Manager, Administration Manager and Process Manager was initiated late in the quarter and all positions are expected to be filled by early February 2010 at which time further details will be provided.

## Development Activities

### Overview

The Company's flagship asset, the Nullagine Gold Project, is located south east of Port Hedland in Western Australia's richly mineralised East Pilbara region, approximately 10 kilometres from the town of Nullagine (Figure 1).

The Nullagine Gold Project has a Mineral Resource estimated at 1.1 million ounces of gold, which is contained within 5 deposits on granted mining leases. The largest deposit is Golden Eagle located approximately 10 km south of the township of Nullagine and contains 69% of the total estimated Mineral Resource. Much of the permitting and design work for a 1 million tonne per annum Carbon-In-Leach (CIL) processing facility has been completed. The Nullagine Ore Reserve estimate is presented in Table 1.

Results from the recently updated feasibility study indicate the following operational and financial metrics:

- Stage 1 Mining Ore Reserve of 7.97 Mt at an average grade of 1.8 g/t Au containing 463,000 ounces gold
- Initial mine life of 7 years, producing 403,000 ounces from CIL process plant
- Forecast operating cash flow of \$211 million, net cash flow after tax of \$118 million using a gold price of A\$1185/oz
- Internal rate of return (IRR) of 47%
- Gross operating margin of 44%, EBIT margin 27%
- Average cash (C1) costs of US\$594/oz
- Process Plant and Infrastructure development capital cost \$63 million
- Owners cost \$6.3 million, rehabilitation and closure \$8 million (deferred)
- Native Title completed, final permitting largely complete
- Inferred Resource areas and depth extensions provide upside
- Scoping study to evaluate heap leach production from year 3

### Operational Strategy

Mine design and scheduling were driven by a desire to maximise gold production for the first four years of the project life. The base case plan results in milling throughput rates of 1.25 Mt per annum in the first four years, reverting to 1 Mt per annum for the remaining three years. The higher milling rates in the early years are achievable within the existing process design and exploit excess mill

capacity when treating a majority of oxide ore types. Taking this approach generates annual gold production of between 60,000 oz and 72,000 oz during the first 4 years, reducing to between 45,000 oz and 50,000 oz for the remaining three years reflecting a mill throughput rate of 1 Mt per annum.

The rationale for the two-step production plan recognises that upside exists in bringing other Inferred Mineral Resources into the Measured and Indicated categories, capable then of being assessed for Ore Reserve status; and the potential to exploit mineralised waste and other material through lower cost heap leach operation. In addition, depth and strike extension potential exists that will require further exploration to define.

### Heap Leach Scoping Study

During the quarter a scoping study<sup>1</sup> was undertaken to establish a development framework and set of objectives for introducing a heap leach operation that will run in parallel with the CIL project from the commencement of production year 3.

The scoping study assumed a “target” of 5 Mt from mineralized waste and additional material from conversion of Inferred tonnage, with an average grade of 0.5 g/t Au, and 5 Mt from shallow heap leach material from Golden Eagle South at an average grade of 1 g/t Au to yield an average grade of 0.82 g/t Au. An estimate of 4.78 Mt of mineralized waste at approximately 0.5 g/t Au will come out of Golden Eagle pit alone. Additionally, some 5 Mt of Inferred material is yet to be converted. For Golden Eagle South, the raw potential is stated as 5 Mt to 20 Mt at a nominal 1 g/t Au. The annual treatment rate is based on the heap leach operation finishing at the same time as the CIL project to maximize marginal cost advantages, particularly in the mining area and management overheads.

#### The key assumptions were:

- Initial test work indicated a recovery range of 60% - 70%
- Mineralised waste, below mill cut-off grade, is free-carried to surface (5 Mt @ 0.7 g/t Au for 112 koz)
- Low grade mineralisation identified south-west of Golden Eagle along mineralised structures, has a target range of 5 Mt-20 Mt at a target grade of 0.4 g/t Au-0.9 g/t Au (100 koz-400 koz)
- Further heap leach test work is required to evaluate gold recovery and heap leach amenability of the “target” materials.
- Capital and operating costs based on 2007 Kappes Cassidy heap leach scoping study escalated by factors of 20% to 30% and mining costs on current feasibility estimates.

#### Scoping Study Key inputs:

Gold Price	A\$1185/oz
Material Mined and Treated Target <sup>1</sup>	10 Mt
Average Grade Target <sup>1</sup>	0.82 g/t
Average Recovery Target <sup>1</sup>	65%
Operating Cost Estimate	\$12/tonne treated
Capital Expenditure Estimate	\$35 M
Annual Treatment Rate	2 Mt/y
Project Start Target	Year 3 of CIL project (start of year 3)

#### Outputs (Life of Mine):

Gold Produced	171,000 oz
Operating Cash Flow	\$109 M
IRR (nominal post tax)	55%

The scoping study results define the exploration and technical objectives of the exploration programme scheduled to start in February 2010.

<sup>1</sup> The information relating to the terms “Target range” and “target grade” should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves as defined by the JORC code (2004) and therefore the terms have not been used in this context. It is uncertain whether further exploration or feasibility study will result in the determination of a Mineral Resource or Ore Reserve.

## EPCM – Preferred Engineer

Millennium has selected the Mintrex Division of Holtfreters and BEC Electrical, operating as a joint venture, as its preferred engineer to undertake the Engineering, Procurement and Construction Management for the project. Millennium has worked closely with the joint venture parties during the feasibility update in reaffirming the process flowsheet, process plant design, capital cost estimation and the project implementation plan. SAG mill tendering and tender adjudication were largely completed by quarter end and a final decision on a preferred supplier will be made shortly.

A number of parties have been engaged in design and supply proposals for the accommodation village with the intention of making a decision in February 2010. The final approach to mining fleet and mode of operation will be made when the senior mine team are in position.

## Exploration Activities

During the Quarter, the Company announced Mineral Resource estimates for a further 2 gold deposits located within the Nullagine Gold Project (ASX announcement of 15 December 2009). The two gold deposits, namely Otways and Little Wonder deposits, were drilled during 2006 and 2007 but were never considered significant due to their size.

The Otways deposit is located approximately 300 metres to the south east of the Shearers deposit and contains a Mineral Resource estimated at 1,044,000 tonnes at 0.82 g/t Au using a 0.5 g/t Au cut-off grade for 27,000 ounces contained (Table 2). These Mineral Resources are classified as Indicated and Inferred under the JORC Code.

The Little Wonder deposit is located approximately 2.5 km to the east-north-east of All Nations and contains an Indicated Mineral Resource estimated at 583,000 tonnes at 1.22 g/t Au using a 0.5 g/t Au cut-off grade for 22,900 ounces gold.

Both deposits are open along strike and at depth.

The global Mineral Resource estimate for the Nullagine Gold Project is now stated at 28.8 Mt at 1.24 g/t Au for 1.15 million ounces gold. A total of 23.24 Mt at 1.27 g/t Au is contained within the Measured and Indicated Mineral Resource categories (Table 3). This represents approximately 80% of the total Mineral Resource for the Nullagine Gold Project.

The Mineral Resource has been estimated using the Ordinary Kriging methodology for grade estimation, the method considered most suitable for this style of deposit. The results have been checked using a second resource estimation method, that of Inverse Distance Squared, and which produced similar results.

**Table 2: Otways and Little Wonder Mineral Resource Estimates, using 0.5 g/t Au cut-off grade**

Deposit	Indicated		Inferred		Total		
	Tonnes	Grade (g/t Au)	Tonnes	Grade (g/t Au)	Tonnes	Grade (g/t Au)	Contained Ounces (Au)
Little Wonder	583,000	1.22	-	-	583,000	1.22	22,900
Otways	608,000	0.76	436,000	0.91	1,044,000	0.82	27,000
<b>Total</b>	<b>1,191,000</b>	<b>0.99</b>	<b>436,000</b>	<b>0.91</b>	<b>1,627,000</b>	<b>0.96</b>	<b>49,900</b>

*Note: The resource is quoted for blocks with a grade of greater than 0.5 g/t Au. Differences may occur due to rounding.*

Optimisation of the block models to generate Ore Reserve estimates will be conducted shortly.

### **Diamond Core Drilling**

A short diamond core drilling programme was completed in December 2009, totalling 9 holes for 203 core metres, the details of which are set out in Table 4. The programme was designed to collect sufficient sample to provide for:

- Geotechnical and geological characterisation
- Variability testing for process design
- To cover the metallurgical response of mineralized zones brought to account since the previous feasibility study was completed.

Quarter core samples were submitted to UltraTrace in Perth for fire assay. Significant results include:

- ANMET001 17 metres at 6.12 g/t Au from 16 metres including 6 metres at 15.08 g/t Au
- SHMET001 16 metres at 3.02 g/t Au from 24 metres including 2 metres at 12.70 g/t Au
- BAMET001 10 metres at 2.48 g/t Au from 20 metres
- GEMET001 10 metres at 1.69 g/t Au from 20 metres
- GEMET002 15 metres at 1.05 g/t Au from 18 metres

Two drill holes were stopped short of their planned target intersections due to hole collapse (BAMET002 and GGMET001).

Associated metallurgical test work will commence in early February 2010 and assay, geotechnical and geological data will be incorporated into the relevant databases for future updating.

### **Going Forward**

Within the context of the overall development plan it is the Company's intention to proceed with:

- establishing a contractual base for engineering and construction of the process plant and infrastructure and selecting the mining equipment provider
- tendering drill and blast, camp catering and reagent supply contracts
- recruiting key personnel in project management, site management, mining, process and geology
- exploration and testing of the heap leach potential of mineralised waste scheduled for removal from existing pits
- drilling to convert Inferred Mineral Resource estimates to higher confidence levels from the current 80% in the Measured and Indicated categories (targeting Resource to Reserve conversion)
- delineation of defined resource potential on strike and at depth across all ore bodies
- evaluation of the prospectivity south-west of Golden Eagle for medium grade gold mineralisation that may be amenable to a parallel heap leach operation early in the project life.

To that end a 12,490 m RC and 5,100 m RAB drilling programme will be undertaken commencing in the March 2010 quarter.

## **Tenements**

Millennium's tenement schedule is presented in Table 5.

### ***Enquiries:***

Brian Rear – **Chief Executive Officer**

**17 Ord Street West Perth WA 6005**

**Postal: PO Box 117 West Perth WA 6872**

**T: +61 8 9261 9011**

**F: +61 8 9481 0288**

**W: [www.millenniumminerals.com.au](http://www.millenniumminerals.com.au)**

### ***Qualifying Statement***

*This release may include forward-looking statements. These forward-looking statements are based on Millennium's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Millennium, which could cause actual results to differ materially from such statements. Millennium makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of this release.*

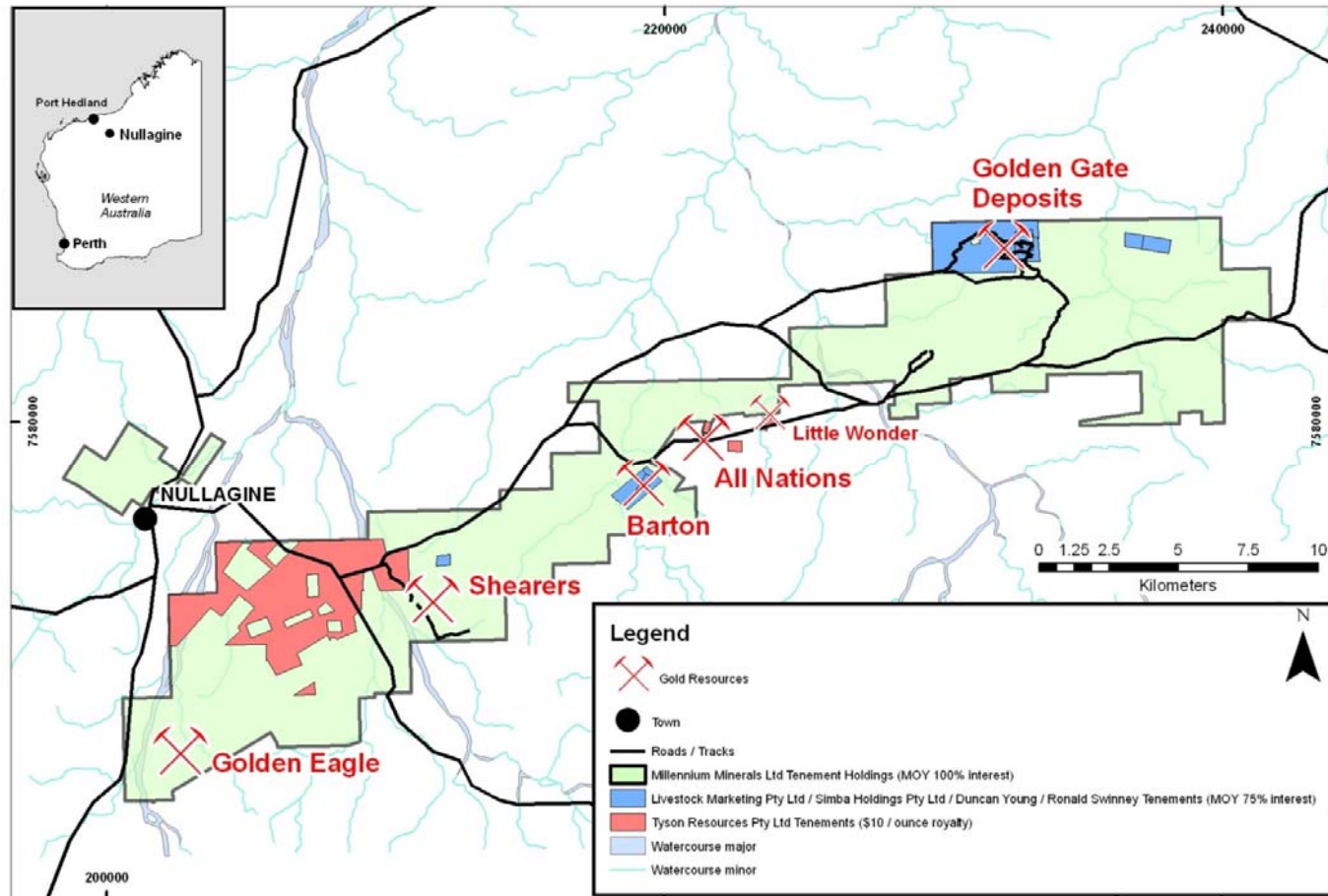


Figure 1: Nullagine Gold Project Location

**Table 1: Nullagine Gold Project Ore Reserve Estimate October 2009**

Pit	Proven			Probable			Total		
	Ore (t)	Grade (g/t)	Ounces	Ore (t)	Grade (g/t)	Ounces	Ore (t)	Grade (g/t)	Ounces
<b>Golden Eagle</b>	5,149,400	1.6	272,450	579,100	1.5	28,270	5,728,500	1.6	300,720
<b>Bartons</b>	663,100	1.8	39,170	313,200	1.9	19,610	976,300	1.9	58,780
<b>All Nations</b>	313,400	1.8	18,550	20,100	1.6	1,020	333,500	1.8	19,570
<b>Shearers</b>	172,500	1.7	9,290	199,500	1.3	8,190	372,000	1.5	17,480
<b>Golden Gate</b>	314,400	3.7	37,610	66,000	3.9	8,310	380,400	3.8	45,920
<b>Golden Gate Area</b>	-	-	-	187,200	3.4	20,570	187,200	3.4	20,570
<b>Totals</b>	<b>6,612,800</b>	<b>1.8</b>	<b>377,070</b>	<b>1,365,100</b>	<b>2</b>	<b>85,970</b>	<b>7,975,000</b>	<b>1.8</b>	<b>463,040</b>

**Notes:**

1. Numbers may not sum due to rounding.
2. Golden Gate Area comprises 5 small deposits being Falcon, Harrier, Crow, G Reef and Condor.

**Competent Persons Statement**

The information in this public statement that relates to the Ore Reserves at the Millennium Minerals Nullagine Project is based on information compiled by Mr Steve Lampron and Mr. Daniel Tuffin. The Ore Reserve estimate was completed by Mr. Daniel Tuffin of Auralia Mining Consulting. Mr Daniel Tuffin is a Member of the Australasian Institute of Mining and Metallurgy (#228649) and 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 him as a Competent Person as defined in accordance with the Australasian Joint Ore Reserves Committee (JORC).

**Table 3: Nullagine Gold Project Mineral Resource Estimate December 2009**

Deposit	Cut-off Grade (g/t Au)	Measured		Indicated		Inferred		Total		Ounces (Au)
		Mt	Grade (g/t Au)	Mt	Grade (g/t Au)	Mt	Grade (g/t Au)	Mt	Grade (g/t Au)	
Golden Eagle <sup>2</sup>	0.5	11.43	1.26	4.60	1.02	4.04	1.00	20.07	1.16	749,000
Shearers <sup>2</sup>	0.5	0.59	1.09	1.04	0.87	0.40	0.90	2.03	0.93	61,000
Bartons <sup>2</sup>	0.5	1.33	1.47	0.85	1.48	0.37	1.70	2.55	1.51	125,000
All Nations <sup>2</sup>	0.5	1.11	1.30	0.19	1.04	0.14	1.10	1.45	1.25	58,000
Golden Gate (ABCD Reef) <sup>2</sup>	0.5			0.58	3.24	0.11	2.60	0.68	3.12	69,000
Golden Gate Satellites <sup>3</sup>	0.5			0.33	3.00	0.13	3.40	0.46	3.10	45,000
Otways <sup>3</sup>	0.5			0.61	0.76	0.44	0.91	1.04	0.82	27,000
Little Wonder <sup>3</sup>	0.5			0.58	1.22	-	-	0.58	1.22	22,900
<b>Totals</b>	<b>0.5</b>	<b>14.46</b>	<b>1.28</b>	<b>8.78</b>	<b>1.26</b>	<b>5.63</b>	<b>1.12</b>	<b>28.86</b>	<b>1.24</b>	<b>1,156,900</b>

**Notes:**

1. Figures in Table may not sum due to rounding.
2. The Mineral Resources were estimated using Multiple Indicator Kriging methodology for grade estimation by Hellman and Schofield Pty Ltd.
3. The Otways, Little Wonder and Golden Gate satellite deposits namely Falcon, Harrier, Crow, G Vein and Condor were estimated using Ordinary Kriging methodology for grade estimation by CSA Global.
4. The table excludes royalties payable to third parties.
5. The Golden Gate and Bartons deposits are the subject of a mining licence agreement whereby Millennium has the sole and exclusive right to explore and mine gold and other minerals. Millennium then is required to pay 25% of the net proceeds to the tenement owners (Livestock Marketing Pty Ltd, Duncan Thomas Young, Simba Holdings Pty Ltd and Ronald Lane Swinney) after mining and processing cost deductions.

**Competent Persons Statements**

The reported Mineral Resource as it relates to Golden Eagle, Bartons, Shearers, All Nations, Little Wonder and Golden Gate ABCD reefs has been compiled by Mr Nic Johnson. Mr Johnson is a Member of the Australian Institute of Geoscientists and an employee of Hellman & Schofield Pty Ltd. He has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' of December 2004 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia. The Competent Persons listed consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The reported Mineral Resource as it relates to the Otways, Little Wonder and Golden Gate satellite deposits was completed under the overall supervision and direction of Steven Hodgson, MAIG, of CSA Global who is a Competent Person as defined by the Australasian Code for the Reporting of Exploration Results, Mineral Resources or Ore Reserves (JORC Code 2004 Edition) and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears. The information in this report that relates to in-situ Mineral Resources based on information provided by Millennium Minerals Limited. The Mineral Resource estimate was compiled by Steven Hodgson, MAIG, of CSA Global. David Williams, MAusIMM, of CSA Global was responsible for the technical review of the Mineral Resource estimate.

**Table 4: Diamond Drilling Significant Intercepts**

Hole_ID	Ore Body	Easting (mE)	Northing (mN)	Azimuth (Degrees)	Dip (Degrees)	Precollar Depth	Core Interval	Total Depth		From (m)	To (m)	Interval (m)	Grade (g/t)
SHMET001	Shearers	211751	7573700	90	-60	15.3	24.7	40		24	40	16	3.02
									incl	25	27	2	12.7
ANMET001	All Nations	221476	7579545	110	-60	14.8	18.2	33		16	33	17	6.12
									incl	22	28	6	15.08
BAMET001	Bartons	219128	7577583	305	-60	14.8	18.2	33		20	30	10	2.48
BAMET002	Bartons	219187	7577570	305	-60	50.5	29.5	80	NSM				
GEMET001	Golden Eagle	202558	7568073	155	-60	1.5	28.5	30		20	30	10	1.69
GEMET002	Golden Eagle	202433	7567916	155	-60	15.8	19.9	35.7		18	33	15	1.05
GEMET003	Golden Eagle	202609	7568150	155	-60	7.9	31.6	39.5		29	30	1	1.97
GEMET004	Golden Eagle	202176	7567755	155	-60	1	19	20		13	16	3	1.69
GGMET001	Golden Gate	231278	7586750	325	-60	5.8	14.2	20		NSM			

**Notes**

- |          |                                                                           |          |                                            |
|----------|---------------------------------------------------------------------------|----------|--------------------------------------------|
| <b>1</b> | All holes drilled with HQ triple tube diamond core                        | <b>6</b> | Includes up to 3m internal dilution        |
| <b>2</b> | Easting and Northing is based on the GDA 94 datum                         | <b>7</b> | Assay method is 50g fire assay, AAS finish |
| <b>3</b> | Precollar drilling undertaken using a rock roller bit and was not sampled | <b>8</b> | NSM denotes No Significant Mineralisation  |
| <b>4</b> | Azimuths are expressed as true azimuth                                    | <b>9</b> | Sample size is quarter core                |
| <b>5</b> | Precollar and core intervals are expressed as metres downhole             |          |                                            |

**Competent Persons Statement**

Mr SJ Pooley (MAusIMM, MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this report. Mr Pooley is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on 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 Pooley consents to the inclusion in the report of the matters in the form and context in which it appears.

**Table 5: Schedule of Interests in Mining Tenements**

<b>Prospect Area</b>	<b>Tenement</b>	<b>Registered Holder</b>	<b>Millennium Beneficial Interest</b>
ALL NATIONS	M46/199	MILLENNIUM MINERALS LTD	100%
	M46/225	MILLENNIUM MINERALS LTD	100%
	M46/98	MILLENNIUM MINERALS LTD	100%
BARTONS	G46/02	LIVESTOCK MARKETING PTY LTD	*75%
	M46/164	LIVESTOCK MARKETING PTY LTD	*75%
	M46/3	LIVESTOCK MARKETING PTY LTD	*75%
	M46/441	TUPPERGLENDA PTY LTD	*75%
BEATONS CREEK	M46/10	MILLENNIUM MINERALS LTD	100%
	M46/11	MILLENNIUM MINERALS LTD	100%
	M46/9	MILLENNIUM MINERALS LTD	100%
BEATONS CREEK EAST	M46/263	MILLENNIUM MINERALS LTD	100%
	P46/1329	MILLENNIUM MINERALS LTD	100%
	P46/1330	MILLENNIUM MINERALS LTD	100%
CADJEBUT	M46/432	MILLENNIUM MINERALS LTD	100%
DAVIS RIVER	L46/41	MILLENNIUM MINERALS LTD	100%
			100%
EASTERN CREEK	M46/56	DAVID JOHN TAYLOR	100%
	M46/245	DAVID JOHN TAYLOR	100%
FEDERATION	M46/64	MILLENNIUM MINERALS LTD	100%
			100%
FIVE MILE	E46/308	**TYSON RESOURCES PTY LTD	100%
	L46/33	MILLENNIUM MINERALS LTD	100%
	M46/192	MILLENNIUM MINERALS LTD	100%
	M46/212	TYSON RESOURCES PTY LTD	100%
	M46/213	TYSON RESOURCES PTY LTD	100%
	M46/234	TYSON RESOURCES PTY LTD	100%
	M46/235	TYSON RESOURCES PTY LTD	100%
	M46/261	**MILLENNIUM MINERALS LTD	100%
	M46/262	**MILLENNIUM MINERALS LTD	100%
	M46/264	TYSON RESOURCES PTY LTD	100%
	M46/265	TYSON RESOURCES PTY LTD	100%
	M46/266	TYSON RESOURCES PTY LTD	100%
	M46/445	MILLENNIUM MINERALS LTD	100%
	M46/446	MILLENNIUM MINERALS LTD	100%
	M46/50	SIMBA HOLDINGS PTY LTD	*75%
	P46/1123	MILLENNIUM MINERALS LTD	100%
	P46/1328	MILLENNIUM MINERALS LTD	100%
P46/1369	MILLENNIUM MINERALS LTD	100%	

Prospect Area	Tenement	Registered Holder	Millennium Beneficial Interest
FIVE MILE	P46/1370	MILLENNIUM MINERALS LTD	100%
	P46/1371	MILLENNIUM MINERALS LTD	100%
	P46/1404	MILLENNIUM MINERALS LTD	100%
	P46/1436	MILLENNIUM MINERALS LTD	100%
	P46/1437	MILLENNIUM MINERALS LTD	100%
	P46/1451	MILLENNIUM MINERALS LTD	100%
	P46/1452	MILLENNIUM MINERALS LTD	100%
	P46/1461	MILLENNIUM MINERALS LTD	100%
	P46/1604	MILLENNIUM MINERALS LTD	100%
	P46/1605	MILLENNIUM MINERALS LTD	100%
	P46/1606	MILLENNIUM MINERALS LTD	100%
GOLDEN EAGLE	E46/394	**MILLENNIUM MINERALS LTD	100%
	L46/45	MILLENNIUM MINERALS LTD	100%
	M46/186	**MILLENNIUM MINERALS LTD	100%
	M46/267	MILLENNIUM MINERALS LTD	100%
	M46/300	MILLENNIUM MINERALS LTD	100%
	M46/436	MILLENNIUM MINERALS LTD	100%
	M46/443	MILLENNIUM MINERALS LTD	100%
	M46/444	MILLENNIUM MINERALS LTD	100%
	P46/1444	MILLENNIUM MINERALS LTD	100%
GOLDEN GATE	E46/279	SIMBA HOLDINGS PTY LTD	*75%
	M46/129	SIMBA HOLDINGS PTY LTD	*75%
	M46/163	**MILLENNIUM MINERALS LTD	100%
	M46/187	SIMBA HOLDINGS PTY LTD	*75%
	M46/189	SIMBA HOLDINGS PTY LTD	*75%
	M46/200	SIMBA HOLDINGS PTY LTD	*75%
	M46/448	LIVESTOCK MARKETING PTY LTD	*75%
	M46/457	BIGHEAD ENTERPRISES PTY LTD	100%
	M46/47	SIMBA HOLDINGS PTY LTD	*75%
	P46/1421	BIGHEAD ENTERPRISES PTY LTD	100%
	P46/1422	BIGHEAD ENTERPRISES PTY LTD	100%
LITTLE WONDER	M46/146	MILLENNIUM MINERALS LTD	100%
	M46/198	MILLENNIUM MINERALS LTD	100%
MIDDLE CREEK	E46/391	MILLENNIUM MINERALS LTD	100%
	M46/272	MILLENNIUM MINERALS LTD	100%
	M46/273	MILLENNIUM MINERALS LTD	100%
	M46/274	MILLENNIUM MINERALS LTD	100%
	M46/275	MILLENNIUM MINERALS LTD	100%
	M46/276	MILLENNIUM MINERALS LTD	100%
	M46/277	MILLENNIUM MINERALS LTD	100%
	M46/282	MILLENNIUM MINERALS LTD	100%

<b>Prospect Area</b>	<b>Tenement</b>	<b>Registered Holder</b>	<b>Millennium Beneficial Interest</b>
MIDDLE CREEK	M46/302	MILLENNIUM MINERALS LTD	100%
	M46/430	MILLENNIUM MINERALS LTD	100%
	M46/431	MILLENNIUM MINERALS LTD	100%
	M46/447	MILLENNIUM MINERALS LTD	100%
	P46/1270	MILLENNIUM MINERALS LTD	100%
MOSQUITO CREEK	E46/452	MILLENNIUM MINERALS LTD	100%
	M46/278	MILLENNIUM MINERALS LTD	100%
	M46/279	MILLENNIUM MINERALS LTD	100%
	M46/283	MILLENNIUM MINERALS LTD	100%
	M46/303	MILLENNIUM MINERALS LTD	100%
	M46/426	MILLENNIUM MINERALS LTD	100%
	M46/427	MILLENNIUM MINERALS LTD	100%
	M46/428	MILLENNIUM MINERALS LTD	100%
	M46/429	MILLENNIUM MINERALS LTD	100%
	P46/1459	MILLENNIUM MINERALS LTD	100%
NULLAGINE	P46/1382	JOHN FRANCIS WALSH	100%
NULLAGINE SOUTH	P46/1557	MILLENNIUM MINERALS LTD	100%
	P46/1558	MILLENNIUM MINERALS LTD	100%
	P46/1559	MILLENNIUM MINERALS LTD	100%
	P46/1560	MILLENNIUM MINERALS LTD	100%
	P46/1561	MILLENNIUM MINERALS LTD	100%
	P46/1562	MILLENNIUM MINERALS LTD	100%
	P46/1563	MILLENNIUM MINERALS LTD	100%
	P46/1564	MILLENNIUM MINERALS LTD	100%
	P46/1565	MILLENNIUM MINERALS LTD	100%
	P46/1566	MILLENNIUM MINERALS LTD	100%
	P46/1567	MILLENNIUM MINERALS LTD	100%
	P46/1568	MILLENNIUM MINERALS LTD	100%
	P46/1569	MILLENNIUM MINERALS LTD	100%
	P46/1570	MILLENNIUM MINERALS LTD	100%
	P46/1571	MILLENNIUM MINERALS LTD	100%
	P46/1572	MILLENNIUM MINERALS LTD	100%
	P46/1573	MILLENNIUM MINERALS LTD	100%
	P46/1574	MILLENNIUM MINERALS LTD	100%
P46/1575	MILLENNIUM MINERALS LTD	100%	
P46/1576	MILLENNIUM MINERALS LTD	100%	
ONE MILE	P46/1587	MILLENNIUM MINERALS LTD	100%
TWENTY MILE SANDY	M46/433	MILLENNIUM MINERALS LTD	100%
	M46/434	MILLENNIUM MINERALS LTD	100%

\*The percentage noted is not a beneficial ownership interest in the tenements or the ore contained within the tenements, but the percentage of the net proceeds from the sale of product Millennium Minerals Limited is entitled to retain on sale of product derived from the tenements. Millennium Minerals Limited has an interest under a Mining Licence Agreement with Livestock Marketing Pty Ltd, Duncan Thomas Young, Simba Holdings Pty Ltd and Ronald Lane Swinney (the "Tenement Owners") whereby Millennium has the sole and exclusive right to enter upon the tenements, conduct exploration and extract gold and other minerals. Millennium is then required to pay 25% of the net proceeds to the Tenement Owners after deductions relating to mining and processing costs. \*\* Royalties Apply

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98.

Name of entity

**Millennium Minerals Limited**

ABN

85 003 257 556

Quarter ended ("current quarter")

31 December 2009

### Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (12 months) \$A'000
<b>Cash flows related to operating activities</b>		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for		
(a) exploration and evaluation	(774)	(1,529)
(b) development	-	-
(c) production	-	-
(d) administration	(366)	(869)
1.3 Commission received	-	-
1.4 Interest and other items of a similar nature received	12	64
1.5 Rent income received	21	30
1.6 Interest and other costs of finance paid	-	-
1.7 Other	-	-
<b>Net Operating Cash Flows</b>	<b>(1,107)</b>	<b>(2,304)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
(a)prospects	-	-
(b)equity investments	-	-
(c)other fixed assets	-	-
(d)security deposits	-	-
1.9 Proceeds from sale of:		
(a)prospects	-	-
(b)equity investments	-	-
(c)other fixed assets	-	138
(d)security deposits	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other ( <i>Commission paid on the sale of surplus assets</i> )	-	-
<b>Net investing cash flows</b>	<b>-</b>	<b>138</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(1,107)</b>	<b>(2,166)</b>

1.13	Total operating and investing cash flows (brought forward)	<b>(1,107)</b>	<b>(2,166)</b>
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	2,549	4,483
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	<b>(631)</b>
1.18	Dividends paid	-	-
1.19	Other ( <i>Due Diligence fees re financing Gold mining Feasibility Study</i> )	-	-
<b>Net financing cash flows</b>		<b>2,549</b>	<b>3,852</b>
<b>Net increase (decrease) in cash held</b>		<b>1,442</b>	<b>1,686</b>
1.20	Cash at beginning of quarter/year to date	1,211	967
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	<b>2,653</b>	<b>2,653</b>

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	33
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Non Executive Directors
-------------------------

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

None
------

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

None
------

## Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	Nil	Nil
3.2 Credit standby arrangements	-	-

## Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	540
4.2 Development	0
<b>Total</b>	<b>540</b>

## Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	74	1,211
5.2 Deposits at call	2,579	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>	<b>2,653</b>	<b>1,211</b>

## Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1 Interests in mining tenements relinquished, reduced or lapsed	Nil	-	-	-
6.2 Interests in mining tenements acquired or increased	Nil	-	-	-

## Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference securities</b> (descr)	-	-	-	-
7.2 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decreases through returns of capital, buy-backs, redemption's	-	-	-	-
7.3 <b>+Ordinary securities</b>	465,961,524	465,961,524	-	-
7.4 Changes during quarter				
(a) Increases through issues	60,777,590	60,777,590	4.5 cents	4.5 cents
(b) Decreases through returns of capital, buy-backs	-	-	-	-
7.5 <b>+Convertible debt securities</b> (description)	Nil	-	-	-
7.6 Changes during quarter				<u>Expiry Date &amp; Date Repaid in full</u>
(a) Increases through issues	-	-	-	-
(b) Decreases through debt repaid and debt securities extinguished	-	-	-	-
7.7 <b>Options</b> (description and conversion factor)	26,200,000	-	<u>Exercise price</u> 29 cents (6.7m) 30 cents (3.5m) 23 cents (5.0m) 20 cents (8.5m) 20 cents (2.5m)	<u>Expiry date</u> 19 Dec 11 31 Oct 11 19 Dec 11 31 Oct 11 21 Feb 12
7.8 Issued during quarter	-	-	-	-
7.9 Exercised during quarter	-	-	-	-
7.10 Expired during quarter	-	-	-	-
7.11 <b>Debentures</b> (totals only)	-	-	-	-
7.12 <b>Unsecured notes</b> (totals only)	-	-	-	-

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Law or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Signed:

Date: 28 January 2010

Print name: Mark Killmier, Company Secretary

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

== == == == ==