



MILLENNIUM

MINERALS LIMITED

ABN 85 003 257 556

3 January 2012

Manager Company Announcements  
Company Announcements Office  
Australian Securities Exchange Limited  
Level 4, 20 Bridge Street  
**SYDNEY NSW 2000**

Dear Sir/Madam

### **Nullagine Gold Project – December Production on target**

Millennium Minerals Limited (“Millennium” or the “Company”) is pleased to announce a production update from its Nullagine Gold Project in the East Pilbara District of Western Australia for the month of December 2012.

The critical operating parameters of plant throughput and gold recovery continue to be met and the process plant has demonstrated a capacity to run at sustained rates up to 220 tonnes per hour, 30 tonnes per hour above design. The results of the production runs above design have been encouraging. Gold dore poured attributable to December amounted to 5,786 ounces, with metallurgical recovery averaging 92.5% for the month. The SAG mill average throughput rate was 198 tonnes per hour for the month, with sustained periods over 24 hours above 200 tonnes per hour. Tonnes milled amounted to 125,411 dry tonnes from a little over 129,000 wet tonnes delivered.

### **Expansion Studies**

The observed production experience in December continues to support the Company’s plan to lift production above the base case design as the mine moves into the new financial year. The mill has demonstrated that it can operate at or above the 1.7 million tonnes per year rate over a continuous 24 hour period.

The Company is targeting a stage one expansion from design throughput of 1.5 million tonnes per annum (Mtpa) to at least 1.7 Mtpa treated during FY2013. This requires an increase in throughput from 189 tonnes per hour to approximately 200 tonnes per hour. Average throughput rates for December at 198 tonnes per hour equate to that objective.

The key business objective is to find that combination of throughput and head grade that yields the highest return and best profit margin from the production assets, which does not necessarily rely solely on the tonnage mined and treated.

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Future production, cost and cash flow guidance in respect of the 2013 financial year (Millennium's financial year ends in December) will be given in quarter one 2013.



### **Exploration**

The Company has commenced an aggressive exploration programme designed to increase the Mineral Resource and Ore Reserve base across the Company's tenements. The programme of RC drilling has commenced at Golden Eagle and is targeting previously identified hanging wall mineralisation currently considered as Inferred Resource under the JORC code.

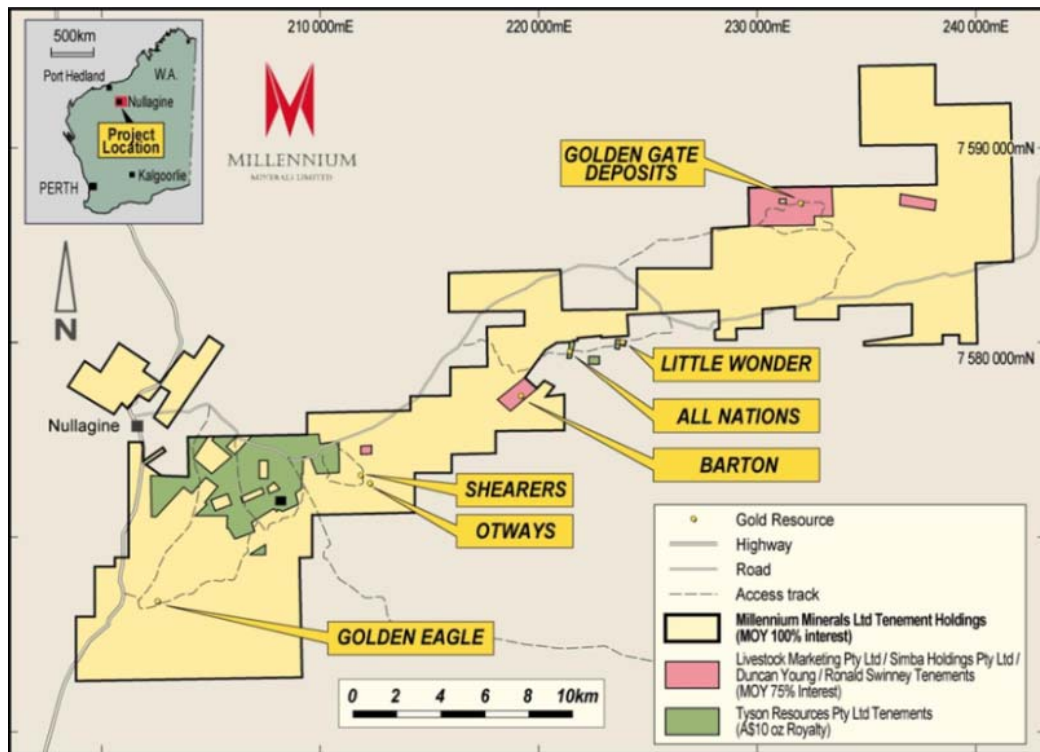
For calendar year 2013, a minimum of 56,000 metres of drilling is proposed, targeting strike and depth extensions to known deposits as well as a large number of geochemical anomalies previously untested by drilling.

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## BACKGROUND - NULLAGINE GOLD PROJECT

The Nullagine Gold Project (Figure 1) has a 1.33 million ounce gold resource (Table 1) and 741,000 ounce Ore Reserve contained within 7 deposits on granted mining leases (Table 2). The largest deposit is Golden Eagle located approximately 10 km south of the township of Nullagine and containing 62% of the total Mineral Resource inventory. The recently commissioned gold process plant has a capacity of 1.5 Mtpa and at forecast head grade of 1.7 g/t Au will produce 73,000 ounces gold annually.

**Figure 1: Nullagine Deposit Location Plan**



Yours faithfully

**MILLENNIUM MINERALS LIMITED**

Brian Rear

**Chief Executive Officer**

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**Table 1. Nullagine Gold Project Mineral Resource Estimate December 2011 (0.5 g/t Au Cut off)**

Deposit	Measured		Indicated		Inferred		Total		
	Mt	Grade Au (g/t)	Mt	Grade Au (g/t)	Mt	Grade Au (g/t)	Mt	Grade Au (g/t)	Ounces
Golden Eagle <sup>2</sup>	13.61	1.23	4.44	1.03	4.2	1.06	22.27	1.16	829,000
Bartons <sup>3</sup>	1.72	1.21	1.44	1.17	0.55	1.12	3.71	1.2	141,000
Shearers <sup>3</sup>	0.59	1.27	1.48	1.01	0.26	1	2.33	1.1	81,000
Otways <sup>3</sup>	1.15	0.81	0.9	0.87	0.692	0.92	2.74	0.86	75,000
All Nations <sup>3</sup>	1.3	1.13	0.42	0.95	0.21	0.92	1.93	1.1	66,000
Little Wonder <sup>3</sup>	0.17	1.2	0.38	1.2	0.01	1.3	0.56	1.2	22,100
Golden Gate (ABCD Reef) <sup>4</sup>	-	-	0.58	3.24	0.11	2.6	0.68	3.12	69,000
Falcon <sup>5</sup>	-	-	0.09	3.9	0.04	4.4	0.14	4	18,000
Condor <sup>5</sup>	-	-	0.08	3.3	0.04	3.5	0.11	3.3	12,000
Harrier <sup>5</sup>	-	-	0.1	1.8	0.04	1.8	0.14	1.8	8,000
Crow <sup>5</sup>	-	-	0.02	4.5	0.02	4.5	0.04	4.5	5,000
G_Reef <sup>5</sup>	-	-	0.03	2.1	-	-	0.03	2.1	2,000
<b>Total</b>	<b>18.54</b>	<b>1.2</b>	<b>9.96</b>	<b>1.23</b>	<b>6.17</b>	<b>1.11</b>	<b>34.68</b>	<b>1.19</b>	<b>1,328,100</b>

**Notes:**

- Figures in table may not sum due to rounding.
- The Golden Eagle deposit was estimated using Multiple Indicator Kriging methodology for grade estimation by CSA Global.
- The Bartons, Shearers, Otways, All Nations and Little Wonder were estimated using Ordinary Kriging methodology for grade estimation by CSA Global.
- The Mineral Resources at Golden Gate (ABCD reef) were estimated using Multiple Indicator Kriging methodology for grade estimation by Hellman and Schofield Pty Ltd.
- The Mineral Resources at Golden Gate satellite deposits, namely Falcon, Harrier, Crow, G-Reef and Condor were estimated using Ordinary Kriging methodology for grade estimation by CSA Global.
- 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.
- Mineral Resource estimates include stated Ore Reserves.

**Table 2. Nullagine Gold Project Ore Reserve Estimate December 2011**

Prospect	Proved		Probable		Total		Ounces
	tonnes	grade (g/t)	tonnes	grade (g/t)	tonnes	grade (g/t)	
Golden Eagle	10,348,000	1.3	1,545,000	1.2	11,893,000	1.3	508,000
Bartons	1,144,000	1.4	498,000	1.4	1,642,000	1.4	73,000
All Nations	536,000	1.4	38,000	1.2	574,000	1.4	26,000
Shearers	532,000	1.3	388,000	1.2	920,000	1.2	37,000
Otways	336,000	1.0	78,000	1.0	414,000	1.0	13,000
Little Wonder	145,000	1.2	113,000	1.3	258,000	1.3	10,400
Golden Gate							
ABCD			464,000	3.4	464,000	3.4	51,000
Condor <sup>2</sup>			72,000	3.1	72,000	3.1	7,300
Crow <sup>2</sup>			19,000	4.1	19,000	4.1	2,500
Falcon <sup>2</sup>			76,000	3.9	76,000	3.9	9,500
Harrier <sup>2</sup>			38,000	2.0	38,000	2.0	2,400
G reef <sup>2</sup>			11,000	2.0	11,000	2.0	700
<b>Total</b>	<b>13,041,000</b>	<b>1.3</b>	<b>3,340,000</b>	<b>1.5</b>	<b>16,381,000</b>	<b>1.4</b>	<b>740,800</b>

**Notes:**

- 1 Numbers may not sum due to rounding.
- 2 These deposits are collectively known as Golden Gate Area Satellite deposits.

### **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.*

### **Competent Persons Statements – Exploration Results**

*Mr I Hay (MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this report. Mr Hay is a member of the Australian Institute of Geoscientists 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 Hay consents to the inclusion in the report of the matters in the form and context in which it appears.*

### **Competent Persons Statements – Mineral Resources**

*The information in this Report which relates to the **Golden Eagle Mineral Resource estimate** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The Golden Eagle deposit Mineral Resource estimate has been compiled and prepared by Dr Bielin Shi, (MAusIMM) of CSA Global Pty. Ltd. who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and 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 which relates to the **Shearers Mineral Resource estimate** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The Shearers deposit Mineral Resource estimate has been compiled and prepared by Mr. David Williams (MAusIMM, MAIG) of CSA Global Pty. Ltd. who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and 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 which relates to the **Otways Mineral Resource estimate** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The Otways deposit Mineral Resource estimate has been compiled and prepared by Mr. Shane Fieldgate (MAusIMM, MAIG) of CSA Global Pty. Ltd. who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and 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 which relates to the **Little Wonder and Golden Gate Satellite Mineral Resource estimates** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The Little Wonder and Golden Gate satellite deposits Mineral Resource estimate has been compiled and prepared by Steven Hodgson, (MAIG) of CSA Global Pty. Ltd. who is a Competent Person as defined by the Australasian Code for the reporting of Exploration Results, Mineral Resources and 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 which relates to the **Bartons, All Nations and Golden Gate ABCD reef Mineral Resource estimates** accurately reflects information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The reported Mineral Resource as it relates to Bartons, All Nations, and Golden Gate ABCD reef 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 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.*

#### **Competent Persons Statements – Ore Reserves**

*The information in this Report, which relates to the Ore Reserve estimates accurately reflect information prepared by competent persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). 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. Mr. Daniel Tuffin of Auralia Mining Consulting completed the Ore Reserve estimate. 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).*

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