

ASX Code: MOY

#### 11 March 2016

#### **Corporate Details**

**Ordinary Shares:** 742,695,372

Market Capitalisation: ~A\$90 million

Cash at 31 December 2015: \$A11.4 million

Debt at 31 Jan 2016 NIL

ASX Code: MOY

#### **Board of Directors**

Richard Procter Non-Executive Chairman

Greg Bittar Executive Director

Michael Chye Non-Executive Director

Ross Gillon Non-Executive Director

#### Management

**Glenn Dovaston** Chief Executive Officer

Richard Hill Chief Financial Officer

**Pierre Malherbe** Company Secretary

Peter Cash GM Corporate Development

Peter Manton Chief Operations Officer

Hardy Cierlitza Chief Geologist

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# More high-grade hits pave way for maiden Mineral Resource at Anne de Vidia

*Estimate will form part of wider Nullagine Gold Project Mineral Resource update scheduled for completion during the March 2016 quarter* 

# **Key points**

- Further high-grade results returned from the recent Anne De Vidia discovery, located just 9 km from the Nullagine gold processing plant
- Detailed 68-hole drilling program at Anne de Vidia now complete. Latest assay results include:
  - 11 m @ 3.78 g/t Au including 4 m @ 4.84 g/t Au (FMX105)
  - 15 m @ 1.66 g/t Au (FMX252)

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- 5 m @ 4.06 g/t Au including 2 m @ 9.07 g/t Au (FMX050)
- 7 m @ 2.86 g/t Au including 1 m @ 7.01 g/t Au (FMX096)
- 10 m @ 2.00 g/t Au (FMX135)
- These hits follow the outstanding results from the first phase of the program, including:
  - 8 m @ 6.84 g/t Au including 3 m @ 15.08 g/t Au (FMX112)
    - 3 m @ 24.49 g/t Au including 1 m@ 67.00 g/t Au (FMX113)
  - **7 m @ 5.03 g/t Au** including **1 m @ 30.90 g/t Au** (FMX128)
  - **12 m @ 2.20 g/t Au** including **1 m @ 12.50 g/t Au** (FMX141)
- The main mineralised trend at Anne de Vidia is interpreted to continue to the north-east for a further a 200 m
- A drilling program is being planned to test for strike extensions and to follow-up high-grade intercepts (including 8 m at 9.89 g/t Au) returned from the nearby Castlemaine prospect, located immediately adjacent to Anne de Vidia
- Millennium is now debt-free and on track to produce 80,000 oz-85,000 oz in CY2016 at an all-in sustaining cost of A\$1180/oz-A\$1220/oz



**Millennium Minerals Limited (Millennium** or **Company** – ASX: MOY) is pleased to advise that the imminent Mineral Resource upgrade at its Nullagine Gold Project (**Project**) in WA (*Figure 1*) has received another strong boost with more high-grade drilling results from the recent Anne de Vidia discovery.

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These results will underpin a maiden Mineral Resource estimate for Anne de Vidia, which will in turn be included in the wider Project's Mineral Resource upgrade. This revised estimate is on track for completion during the March 2016 quarter.



Figure 1: Nullagine Deposit Location Plan over regional geology

The drilling at Anne de Vidia, which is located just 9 km from the Nullagine processing plant (*Figure 1*), is part of Millennium's strategy to grow the Project's gold inventory and mine life.

Millennium has recorded a host of exploration successes at the Project recently (ASX release dated February 22, 2016) and this will be reflected in the imminent Mineral Resource upgrade statement.

The Company is now debt-free and enjoying strong cashflow thanks to the operational performance at the Project, where it expects to produce 80,000 oz-85,000 oz in CY2016 at an all-in sustaining cost of A\$1180/oz-A\$1220/oz.

# Anne de Vidia

Following the highly encouraging round of RC drilling completed last year at Anne de Vidia, a 20 m x 10 m drill program was designed across the extent of the known mineralised zone for the purpose of establishing a maiden Mineral Resource estimate.



This drill program was also designed to test potential strike extensions to the north and south as well as a series of interpreted sub-parallel mineralised zones. A number of outstanding high-grade results have now been received, confirming that Anne de Vidia is rapidly emerging as a significant discovery.

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An initial multi-phase 40 m x 20 m pattern RC drill program was completed during the December 2015 Quarter to establish the extent of the high-grade mineralisation.

Several significant high grade gold intercepts were returned including **3 m @ 15.99 g/t Au** and **4 m @ 11.67 g/t Au** (ASX Release dated 22 December 2015), demonstrating that the main Anne De Vidia high-grade mineralised structure is continuous over at least 240 m and, more importantly, has not been closed off along strike (*Figure 2*).

A 20 m x 10 m, 68-hole drill program has now been completed across the extents of the known mineralised zone for the purpose of establishing a maiden Mineral Resource estimate.

The second phase of assay results has now been received and includes (*Figures 2* and *4*) (*Appendix 1*):

- 11 m @ 3.78 g/t Au including 4 m @ 4.84 g/t Au (FMX105)
- 15 m @ 1.66 g/t Au (FMX252)
- 5 m @ 4.06 g/t Au including 2 m @ 9.07 g/t Au (FMX050)
- 7 m @ 2.86 g/t Au including 1 m @ 7.01 g/t Au from 15 m (FMX096)
- 10 m @ 2.00 g/t Au (FMX135)



Figure 2 – Anne de Vidia and Castlemaine Projects showing historical and recent drilling



These latest results follow outstanding high-grade intercepts (ASX Release 22 December 2015) returned from the first phase of returned assay results which included (*Figures 2* and *3*):

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- 8 m @ 6.84 g/t Au including 3 m @ 15.08 g/t Au (FMX112)
- 3 m @ 24.49 g/t Au including 1 m@ 67.00 g/t Au (FMX113)
- 7 m @ 5.03 g/t Au including 1 m @ 30.90 g/t Au (FMX128)
- 12 m @ 2.20 g/t Au including 1 m @ 12.50 g/t Au (FMX141)

Importantly, this latest round of Mineral Resource definition drilling - supported by recent surface mapping, indicates the high grade mineralisation at Anne de Vidia could extend to the north-east for a further 200 metres (*Figure 2*).

Recent surface mapping completed in January 2016 has also identified additional mineralised zones adjacent and to the south of the Anne de Vidia discovery (*Figure 2*). Rock chip results from this area have returned multiple anomalous assay results with a peak value of 3.20 g/t Au.

High-grade results have now been returned from this area, confirming a series of mineralised parallel lodes which have not been closed off in either direction by this latest round of drilling (*Figure 2*).



*Figure 3 – Anne de Vidia cross section with significant drill hole intercepts from first phase of current RC drilling program* 

At the nearby Castlemaine prospect, drilling recently returned several significant high-grade results including an intercept of **8 m @ 9.89 g/t Au** which is now interpreted to be a potential extension of the southern parallel lodes (*Figure 2*).





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Figure 4 – Anne de Vidia cross section with significant drill hole intercepts from latest RC drilling

Now that all assay results have been returned, work has begun on establishing a maiden Mineral Resource estimate for Anne De Vidia. This work is scheduled for completion during the March 2016 quarter.

Planning for follow-up drilling at Anne de Vidia to further test the northern strike extension of the main high-grade lode, the strike extents of the recently identified parallel lodes and the high grade intercepts returned form Castlemaine is now underway and is scheduled to begin in the coming weeks.

The Company now has three RC drill rigs and one diamond drill rig operating at the Project to assist with this focused exploration program, in particular near-mine opportunities at several deposits including Shearers, Otways, Roscoes Reward, Anne de Vidia, All Nations and Round Hill

## **ENDS**

For further information, please contact: Glenn Dovaston – Chief Executive Officer +61 8 9216 9011 For media inquiries, please contact: Paul Armstrong – Read Corporate +61 421 619 084



# **Competent Persons Statements – Exploration Results**

*Mr* Andrew Dunn (MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this Report. Mr Dunn 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 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Dunn consents to the inclusion in the report of the matters in the form and context in which it appears.



# Appendix 1 – Anne De Vidia table of results

Hole_ID	GDA East	GDA North	RL	Azimuth	Dip	Max Depth		From (m)	To (m)	Width (m)	Grade (g/t Au)	Gram- metres
FMX032	209313	7572646	385	135	-60	60		20	21	1	0.59	0.6
								46	49	3	1.00	3.0
FMX033	209288	7572669	393	135	-60	50		11	14	3	1.90	5.7
								22	33	11	0.48	5.3
								39	43	4	0.74	3.0
FMX034	209274	7572682	396	135	-60	80		8	9	1	1.42	1.4
								22	25	3	0.91	2.7
								42	43	1	1.65	1.7
								59	60	1	3.86	3.9
								72	76	4	0.59	2.4
FMX035	209324	7572661	389	135	-60	60		26	27	1	2.01	2.0
								41	43	2	0.68	1.4
								49	50	1	1.04	1.0
FMX036	209297	7572686	394	135	-60	50		5	17	12	0.64	7.7
								41	42	1	0.52	0.5
FMX037	209283	7572701	397	135	-60	80		23	27	4	0.45	1.8
								62	64	2	1.01	2.0
FMX038	209271	7572713	400	135	-60	40		24	25	1	0.90	0.9
FMX039	209259	7572724	398	135	-60	50		1	2	1	0.57	0.6
								8	9	1	0.51	0.5
								42	43	1	0.69	0.7
FMX040	209252	7572731	396	135	-60	60		35	36	1	0.78	0.8
FMX041	209245	7572738	394	135	-60	70		7	8	1	0.50	0.5
								28	29	1	1.74	1.7
								65	66	1	0.55	0.6
FMX042	209239	7572745	392	135	-60	80				NSA		NSA
FMX043	209219	7572766	385	135	-60	50				NSA		NSA
FMX048	209337	7570676	391	135	-60	60		35	40	5	1.38	6.9
FMX049	209307	7572706	394	135	-60	50		2	3	1	0.54	0.5
								21	23	2	1.18	2.4
								40	42	2	0.91	1.8
FMX050	209293	7572720	396	135	-60	80		15	16	1	0.70	0.7
								20	25	5	4.06	20.3
							Incl.	22	24	2	9.07	18.1
								75	76	1	0.63	0.6
FMX051	209270	7572741	397	135	-60	40		17	19	2	0.74	1.5
FMX052	209262	7572750	395	135	-60	60		5	6	1	0.78	0.8
								25	29	4	0.84	3.4
FMX053	209261	7572754	394	135	-60	70		1	2	1	0.82	0.8
								28	33	5	1.07	5.4
FMX054	209255	7572755	393	135	-60	80		15	17	2	0.94	1.9
								35	36	1	0.76	0.8
								41	44	3	1.45	4.4

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Hole_ID	GDA East	GDA North	RL	Azimuth	Dip	Max Depth		From (m)	То (m)	Width (m)	Grade (g/t Au)	Gram- metres
FMX060	209321	7572722	392	135	-60	40		9	11	2	3.76	7.5
							Incl.	9	10	1	7.02	7.0
								14	15	1	0.70	0.7
								24	32	8	0.98	7.8
FMX061	209307	7572736	395	135	-60	80				NSA		NSA
FMX062	209277	7572763	395	135	-60	40		16	20	4	2.02	8.1
FMX063	209264	7572778	390	135	-60	70		13	15	2	3.99	8.0
							Incl.	13	14	1	7.29	7.3
								33	41	8	0.91	7.3
								62	63	1	0.72	0.7
FMX064	209257	7572785	387	135	-60	80		22	23	1	0.66	0.7
								43	45	2	0.72	1.4
								70	73	3	1.35	4.1
								77	78	1	0.50	0.5
FMX065	209250	7572792	385	135	-60	50				NSA		NSA
FMX070	209332	7572737	391	135	-60	50		9	10	1	0.59	0.6
								34	39	5	1.11	5.6
FMX071	209318	7572752	394	135	-60	80		7	8	1	19.95	20.0
								13	14	1	1.03	1.0
								19	27	8	1.01	8.1
	2002056	7572761	206	125	60	50			30	3	0.08	2.0
TWXU72	2092930	/3/2/01	390	155	-00	50		26	2	- 1	0.71	1.4
FMX073	209290	7572781	393	135	-60	60		12	13	1	0.85	0.9
	200200	10/2/01	000	100				40	41	1	0.58	0.6
FMX074	209281	7572789	391	135	-60	70		68	69	1	2.04	2.0
FMX075	209274	7572796	388	135	-60	80		13	18	5	0.69	3.5
								33	34	1	0.57	0.6
								72	75	3	1.45	4.4
FMX080	209306	7572793	394	135	-60	50		9	11	2	3.73	7.5
							Incl.	9	10	1	6.02	6.0
								21	23	2	1.19	2.4
FMX081	209290	7572808	390	135	-60	80		69	70	1	0.51	0.5
FMX082	209276	7572823	385	135	-60	50		30	33	3	0.80	2.4
								46	47	1	0.52	0.5
FMX087	209328	7572800	395	135	-60	40		2	9	7	1.02	7.1
FMX089	209318	7572809	393	135	-60	50		10	19	9	1.07	9.6
								25	26	1	1.56	1.6
FMX090	209305	7572822	391	135	-60	72		23	29	6	1.50	9.0
							Incl.	23	24	1	5.98	6.0
								43	44	1	0.61	0.6
								68	69	1	0.83	0.8

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Hole_ID	GDA East	GDA North	RL	Azimuth	Dip	Hole Depth		From (m)	To (m)	Interval Width	Grade	Gram-metres
FMX112	209364	7572848	392	135	-60	50		0	4	4	0.44	1.8
								15	18	3	0.74	2.2
								37	45	8	6.84	54.7
							incl.	37	40	3	15.08	45.2
FMX113	209350	7572862	389	135	-60	80		13	14	1	1.38	1.4
								41	43	2	0.66	1.3
								61	64	3	24.49	73.5
							incl.	61	62	1	67.0	67.0
FMX114	209342	7572870	387	135	-60	80		18	19	1	1.52	1.5
								34	35	1	0.55	0.6
								74	75	1	0.50	0.5
FMX115	209334	7572878	386	135	-60	50		25	26	1	0.61	0.6
								46	47	1	0.77	0.8
FMX120	209373	7572868	390	135	-60	60		31	36	5	0.82	4.1
								47	50	3	1.40	4.2
FMX121	209365	7572876	389	135	-60	70		32	33	1	1.13	1.1
								40	41	1	0.55	0.6
FMX122	209357	7572884	388	135	-60	80		72	73	1	1.14	1.1
FMX127	209395	7572873	388	135	-60	40		4	8	4	2.49	10.0
-								12	17	5	2.63	13.2
FMX128	209381	7572886	389	135	-60	60		27	34	7	5.03	35.2
							incl.	27	28	1	30.9	30.9
								38	39	1	0.72	0.7
								45	48	3	1.01	3.0
FMX129	209366	7572901	390	135	-60	80				NSA		NSA
FMX134	209403	7572891	388	135	-60	40		11	21	10	0.72	7.2
514/4.25	200207	7570007	200	425	60			27	30	3	0.60	1.8
FMX135	209387	7572907	390	135	-60	66		52	54	AA	2.00	AA
FIVIX136	209379	/5/2915	390	135	-60	80		53	54	1	3.96	4.0
							incl	57	61	1	2.34	10.4
EMY141	200415	7572008	200	125	-60	40	mer.	2	1	1	0.77	0.8
1101/141	203413	7372908	388	155	-00	40		19	31	12	2 20	26.4
							incl	20	21	1	12 50	12.5
							incl.	30	31	1	5.11	5.1
FMX142	209401	7572921	389	135	-60	60				AA		AA
FMX143	209393	7572930	390	135	-60	80				AA		АА
FMX156	209577	7572950	386	135	-60	40		19	20	1	1.29	1.3
FMX157	209570	7572957	385	135	-60	50				NSA		NSA
FMX158	209606	7572979	386	135	-60	40		14	22	8	9.89	79.1
	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		555	100		.0	incl.	15	21	6	12.49	74.9
FMX159	209599	7572986	384	135	-60	50				NSA		NSA

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NSA = No Significant assays. Intersections are calculated with 0.5g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution. Higher grade intersections are calculated with 5g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution.

### JORC 2012 Edition - Table 1

# Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representatively and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Sampling was carried out using the Reverse Circulation (RC) drill method. A total of 88 holes for 4,132m were completed for the Anne de Vidia/ Castlemaine programme</li> <li>Rock chip samples were collected from a representative section outcrop material to determine whether significant gold mineralisation is likely to be present.</li> <li>No surface samples were used in any estimation of Mineral Resources or Ore Reserves.</li> <li>Standard samples were inserted to the sampling stream at a ratio of 1:50. RC drilling was carried out with a 5.25 inch face-sampling bit, 1m samples collected through a cyclone and cone splitter to form a 2 - 3kg sub-sample. All sub-samples were fully pulverised at the onsite lab to &gt;85% passing - 75um, to produce a 50g charge for Fire Assay with AAS finish.</li> </ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Reverse circulation (RC) drilling was carried out with a 5.25 inch face-sampling bit.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>A record of the recent RC sample recovery and moisture content was recorded by Field Technicians. Overall sample weight and quality were good to very good (1.5-2.5 kg).</li> <li>ALS records sample weights on receipt of samples. This was used to help track sample recovery.</li> <li>There is no observed correlation between sample recovery and gold grade.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All of the drilling has been captured in chip trays. Logging of this programme has yet to be finalised.</li> <li>Geological logging is both qualitative and quantitative in nature. Logging is carried out for lithology, colour, grain size, regolith, alteration, weathering, veining and mineralisation. Sulphide and vein content were logged as a percentage of the interval.</li> <li>RC chip trays are retained at site.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No core was drilled.</li> <li>The recent 1 metre RC samples were split using a rig mounted cone splitter. The vast majority of the samples were dry with moist and wet samples recorded on the sampling sheet.</li> <li>The sample sizes are industry-standard and considered to be appropriate to correctly represent mineralisation at the deposits based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay ranges for gold.</li> <li>Field duplicates were taken from the second aperture of the cone splitter at a rate of 1 in 50 with additional field duplicates taken in the expected mineralised zones.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>The industry best practice standard assay method of 50g charge Fire Assay (ALS) with AAS finish was used to determine total Au content.</li> <li>Commercially prepared, predominantly matrix-matched low, medium &amp; high value certified reference QAQC standards were inserted at a rate of 1:50 into the sample stream.</li> <li>The QAQC results from this protocol were considered to be acceptable.</li> <li>No geophysical tools were used to determine any element concentrations used for these results.</li> <li>Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures.</li> <li>Results highlight that sample assay values are accurate.</li> </ul>
Verification of sampling	• The verification of significant intersections by either independent or alternative company personnel.	• Intersections were checked by alternative company personnel to check they were reported correctly.

Criteria	JORC Code Explanation	Commentary
and assaying	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No twin holes were drilled in the programme. Previous significant intersections were verified with close spaced drilling.</li> <li>A physical copy of the sample register is written out by the Field Assistants and checked against the designed sampling sheet created by the geologist.</li> <li>Assay results were not adjusted.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Post completion of the drilling the RC collars were surveyed with a Real Time Kinematic (RTK) DGPS device to a ±10mm positional precision. All collars are then validated against planned positions as a cross check. Surveyed collar coordinates are uploaded into the Company SQL database.</li> <li>Grid datum is GDA94 51K (East Pilbara).</li> <li>Downhole surveys were completed on all holes at 30m maximum downhole intervals with a preference of an initial survey at ~10m downhole. Surveys were taken using a single shot camera or via electronic multi-shot survey tool (Camprodual or Camteq), lithologies have negligible magnetic susceptibility (greywacke). Re-surveying was carried out to check the quality of measurements.</li> <li>Aerial Photogrammetry± LIDAR was produced by Fugro Surveys (±0.2m vertical &amp; ±0.1m horizontal). Survey control points were marked out by licensed surveyor for the Fugro Survey. An error was noted in early RC drilling collar RL co-ordinates (ellipsoid not geoid model); these holes were adjusted to the Fugro DTM surface RL and recorded as DTM RL in the SQL database; the original survey RL was retained. The DTM RL was used for Mineral Resource Estimates (MRE). Otherwise there was good agreement of surveyed collars and Fugro DTM.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral</li> </ul>	<ul> <li>RC drilling varied from 20m X 20m to 10m X 10m spacing.</li> <li>Thus far the drill spacing has been sufficient to establish geological and grade continuity.</li> </ul>
	<ul> <li>Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	• None of the reported sample intervals were composited. In previous resource estimates some >1m RC assay composites were used. A small number of core composites were retained with a length of less than 1m (minimum 0.3m).

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced of sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>f • Geological mapping and structural measurements have been taken at the deposits and they confirm the orientation of mineralisation defined by the drilling. Based upon the above information the drilling was largely perpendicular to the mineralisation with some exceptions. This was due to steep and inaccessible terrain that meant holes needed to be drilled slightly oblique to the mineralisation to intersect the desired target.</li> <li>No significant orientation bias has been identified in the data at this point.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Samples were given an ID, cross checked by field personnel that they corresponded to the assigned interval. This was checked against the designed sample register.</li> <li>Samples were collected on completion of each hole and delivered to the onsite assay laboratory for sample preparation. The laboratory assigned the same sample ID to the pulps that were shipped to the Perth laboratory. Monitoring of sample dispatch is undertaken for samples sent from site and to confirm that samples have arrived in their entirety and intact at their destination.</li> <li>Sample security is managed with dispatch dates noted for each samples by the technician, this is checked and confirmed at the Perth laboratory on receipt of samples and discrepancies are corrected via telephone link up with the on-site and Perth laboratory.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data reviews.	• Internal lab audits conducted by Millennium have shown no material issues.

# Section 2 Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>All the deposits and prospects lie within fully granted Mining Leases within the Pilbara Gold Field (46), as detailed below. All the tenements are in good standing with no known impediments.</li> <li>Bartons*# -M46/3, &amp; M46/441;</li> <li>Shearers*<sup>+</sup> -M46/261 &amp; M46/262 (100% MML);</li> <li>Otways*<sup>+</sup> - M46/262 (100% MML);</li> <li>Gambols Hill*<sup>+</sup> - M46/262 (100% MML);</li> <li>Gambols Hill*<sup>+</sup> - M46/262 (100% MML);</li> <li>Anne de Vidia^** - M46/262 (100% MML);</li> <li>Castlemaine^** - M46/262 (100% MML);</li> <li>Roscoes Reward*<sup>@</sup> - MM46/166 &amp; M46/442 (100% MML)</li> <li>Round Hill*<sup>@</sup> - MM46/166 (100% MML)</li> <li>Federation* - M46/64 (100% MML) &amp; M46/442<sup>@</sup> (100% MML)</li> <li><sup>^</sup> These tenements are located within the Palyku title claim (WC99/16).</li> <li>*These tenements are located within the Njamal title claim (WC99/8).</li> <li><sup>*</sup> A \$10/oz royalty payable to Tyson Resources Pty Ltd.</li> <li><sup>@</sup> MM46/166 &amp; M46/442 (100% MML) -gross revenue royalty of 6.44% payable to Royalty Stream Investments (WA Gold) Pty Ltd for up to 20koz then it reverts to 1.5% rate for gold mined beyond 20koz ;</li> <li>#The Golden Gate and Bartons deposits are the subject of a mining licence</li> </ul>
		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.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Exploration by other parties has been reviewed and taken into account when exploring. Previous RAB & RC drilling. Millennium has re-drilled in areas that other parties had drilled to gain a greater confidence in those results. In areas where Millennium has not re-drilled the previous holes they were designated as

Criteria	JORC Code Explanation	Commentary
		Inferred or excluded from MRE.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Nullagine Project deposits are structurally controlled, sediment hosted, lode Au style of deposit. They are all situated in the Mosquito Creek Basin that consists predominantly of Archean aged, turbidite sequences of sandstones, siltstones and shales.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Provided in a table that relates exploration results to the drill hole information including: hole co-ordinates, RL, dip, azimuth, end of hole depth, downhole length and interception depths.</li> <li>All of the current drilling with results returned has been reported.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>All of the exploration prospects have their significant intersections reported with a lower cut-off of 0.5g/t Au and maximum of 2 metres of consecutive internal dilution. Higher grade intersections use a lower cut-off of 5g/t Au.</li> <li>All samples reported were one metre in length. Thus no aggregation methods were required to derive intersections.</li> <li>No metal equivalents were used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Only selected historic exploration data related to the included targets and prospects that are presented.</li> <li>The relationships between the quoted intersections are shown on the relevant cross-sections within the presentation. Most of the drilling is orthogonal to the mineralisation; however, in early exploration the dip direction is sometimes uncertain and thus holes some holes can be drilled sub-parallel to the mineralisation producing longer and higher grade intersection than the true intercept</li> <li>The drill hole orientations relative to the ore zones have ensured accurate</li> </ul>

Criteria	JORC Code Explanation	Commentary
		interpretations and 3D modelling.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Significant exploration results are tabulated in the presentation with drill hole plans and sections included to show them in context.</li> <li>Representative maps and sections have been included in the report along with documentation.</li> </ul>
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• All of the current drill results have been reported for the project.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• The outcrops of quartz veins have been previously mapped at Anne de Vidia, mineralisation is primarily associated with a combination of quartz veining, moderate foliation, strong sericite alteration and strong limonite staining.