



MACPHERSONS

**ASX Code: MRP**

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*MacPhersons Resources Ltd is pleased to present this report of quarterly activities.*

*Morrie Goodz  
Managing Director*

#### Board of Directors

**Ashok Parekh**  
Chairman – Executive Director

**Morrie Goodz**  
Managing Director – Executive Director

**Jeff Williams**  
Non-Executive Director

**Peter Rozenauers**  
Non-Executive Director

## MacPhersons continues to grow inventory and mine life at Nimbus-Boorara silver-gold-zinc project

**Boorara Deposit increases 47% - now 340,000oz of gold**

MacPhersons Resources (ASX: MRP) is pleased to advise that its Nimbus-Boorara silver-gold-zinc project near Kalgoorlie continues to grow, with size of the Boorara deposit increasing by 47 per cent to 10.8 million tonnes @ 1.0 g/t containing 340,000 ounces of gold (*full table listed on page 2 of this announcement*).

The expanded JORC Mineral Resource provided by Independent Consultants, CSA Global has delivered a higher level of measured and indicated resource (74%), which increases our level of confidence that the Boorara tonnes will convert to mining inventory and further extend the forecast life of Boorara; this provides further ore for the heap leach portion of the overall Nimbus-Boorara project.

The low discovery cost of these ounces has been approximately \$11.30/oz gold and is indicative of the quality of the Boorara deposit and the MRP geology team.

Boorara is located ~1km from south-west of MacPherson's 100 per cent-owned Nimbus Project, which is in turn located 10km east of Kalgoorlie's Super Pit gold mine.

Boorara also has outstanding exploration potential, with the mineralisation remaining open along strike and at depth – note most of the drilling to date only extends down to the 70m depth.

MacPhersons is on track to deliver the Definitive Feasibility Study (DFS) on Nimbus-Boorara by June this year. This will ensure that the company remains on schedule to commission the project in the December Quarter, 2016.

MacPhersons is also awaiting the Nimbus Mineral Resource Estimate now being calculated by CSA Global in their role as Independent Resource Consultants. MacPhersons expects that this estimate will result in an increased inventory and an extension to the project's current 5.5-year mine life when it is released in April this year.

"This Resource increase at Boorara justifies our confidence in our ability to grow the project's inventory and mine life," MacPhersons Managing Director Morrie Goodz said.

"In parallel with this highly successful exploration program, we are continuing to reduce costs while ensuring that we remain on schedule for commissioning late next year."

*For more information on MacPhersons Resources Limited and to subscribe for regular updates, please visit our website at: [www.mrpresources.com.au](http://www.mrpresources.com.au) or contact our Kalgoorlie office on [info@mrpresources.com.au](mailto:info@mrpresources.com.au) or 08-9068-1300.*

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**Table 1: Boorara MRE JORC Code Supporting Table 1 – Sections 1, 2 and 3** (Full Table 1 included at the end of this report appended to the Independent Memorandum issued by CSA Global dated 24<sup>th</sup> February 2015 from page 5 of this announcement.)

**Table 2: Boorara JORC Resource Summary by Category.**

Category	Oxidation	Tonnes	Au (g/t)	Au (oz)
<b>Measured</b>	tailings	40,000	0.45	600
	oxide	1,850,000	0.96	57,000
	transitional	1,900,000	0.97	59,400
	fresh	1,140,000	0.91	33,600
	<b>sub total</b>	<b>4,930,000</b>	<b>0.96</b>	<b>150,600</b>
<b>Indicated</b>	oxide	250,000	0.93	7,600
	transitional	760,000	0.96	23,500
	fresh	2,350,000	0.96	72,500
	<b>sub total</b>	<b>3,360,000</b>	<b>0.95</b>	<b>103,600</b>
<b>Inferred</b>	oxide	170,000	1.11	6,000
	transitional	190,000	0.95	5,700
	fresh	2,150,000	1.10	75,700
	<b>sub total</b>	<b>2,500,000</b>	<b>1.09</b>	<b>87,300</b>
<b>Grand Total</b>		<b>10,790,000</b>	<b>0.99</b>	<b>341,500</b>

*Mineral resource reported at a cut-off of 0.3g/t Au. Differences in totals occur due to rounding.*

**Table 3: Boorara JORC Resource Summary by Weathering.**

Category	Oxidation	Tonnes	Au (g/t)	Au (oz)
<b>Oxide</b>	measured	1,890,000	0.96	57,600
	indicated	250,000	0.93	7,600
	inferred	170,000	1.11	6,000
	<b>sub total</b>	<b>2,310,000</b>	<b>0.97</b>	<b>71,200</b>
<b>Transitional</b>	measured	1,900,000	0.97	59,400
	indicated	760,000	0.96	23,500
	inferred	190,000	0.95	5,700
	<b>sub total</b>	<b>2,840,000</b>	<b>0.97</b>	<b>88,600</b>
<b>Fresh</b>	measured	1,140,000	0.91	33,600
	indicated	2,350,000	0.96	72,500
	inferred	2,150,000	1.1	75,700
	<b>sub total</b>	<b>5,640,000</b>	<b>1.00</b>	<b>181,700</b>
<b>Grand total</b>		<b>10,790,000</b>	<b>0.99</b>	<b>341,500</b>

Mineral resource reported at a cut-off of 0.3g/t Au. Differences in totals occur due to rounding. Oxide Measured includes 41,200t of tailings.

**Figure 1:** Location of the Boorara Gold Project 10km east of Kalgoorlie's Superpit gold mine and 1km east-southeast of the Nimbus silver-zinc-gold mine.



## About MacPhersons

MacPhersons Resources Ltd (MRP) is a Western Australian resource company with a number of advanced gold, silver and zinc exploration projects.

The Company's focus is to explore and extend the highly prospective Boorara and MacPhersons geological domains of which the Company holds 100% interest in 20km and 11km of strikelength, respectively, including the Nimbus silver-gold-zinc mine and the namesake MacPhersons open cut gold mine.

In 2011, the Company acquired mill processing and mine assets at the Nimbus silver-gold-zinc mine, located 10km east of Kalgoorlie's super pit. These assets came with an approved site for ore processing. A Definitive Feasibility Study (DFS) examining a 4-fold increase in the processing plant capacity is nearing completion.

The assets are at an advanced stage of exploration with prospects adjacent to and beneath 10 existing open cuts and with multiple polymetallic VHMS deposits carrying silver-gold- zinc-lead-copper mineralisation, and new greenfields discoveries.

## Competent Person's Statement

The information in the attached Memorandum report by CSA Global that relates to Mineral Resources is based on information compiled by Mr David Williams, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. David Williams is employed by CSA Global Pty Ltd, an independent consulting company. Mr Williams 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". David Williams consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Tailings is based on information compiled by Mr Morrie Goodz who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Morrie Goodz is a full time officer of MacPhersons Resources Ltd 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 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Goodz has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

**Appendix 1: Memorandum on the Boorara Mineral Resource dated 24 February 2015 by David Williams of CSA Global, with Table 1 – Sections 1 to 3 attached.**



## APPENDIX 1: MEMORANDUM

**To: Morrie Goodz**

**Cc: Dave Reid**

**Date: 24<sup>th</sup> February 2015**

**From: David Williams**

**Re: Boorara Mineral Resource**

CSA Global Pty Ltd (CSA Global) was commissioned by MacPhersons Resources Limited (MacPhersons) to estimate a Mineral Resource for the Boorara Au Project, located near Kalgoorlie in Western Australia. Table 1 presents the Mineral Resource reported above a cut-off grade of 0.3 g/t Au. The model has been classified as Measured, Indicated and Inferred in accordance with the JORC Code<sup>1</sup>. The Mineral Resource update follows completion of thirteen diamond core holes for 1,575.95 m and 116 reverse circulation (RC) holes for 10,249 m drilled since the previous estimate announced 7<sup>th</sup> August 2013.

There is now a high level of confidence in the geological model with sound drilling and sampling quality assurance / quality control (QA/QC) performance results and a high level of confidence in historical drill hole data and a comprehensive density database. A significant volume of the Mineral Resource has therefore been classified as Measured or Indicated in accordance with The JORC Code.

The Boorara Project is located approximately 15 km east-south-east of Kalgoorlie-Boulder within mining leases M26/29, M26/277 and M26/318. MacPherson's Nimbus Ag-Zn-Au Project is located 2 km to the north-east where the exploration and mining offices, original Nimbus silver processing plant, and drill sample storage yard are located.

The Boorara Project area sits in the Achaean Yilgarn block of Western Australia within the Boorara-Menzies Shear Zone (BMSZ). The deposit occurs within the greenstone sequence of the Kalgoorlie Terrane in the southern part of the Norseman-Wiluna belt. Mineralisation at Boorara forms structurally-controlled lodes consisting of two main vein orientations hosted within a dolerite unit. This unit is interpreted to provide a rheological contrast from sediments to the east and ultramafics to the west. There are four main prospect areas as modelled in this Mineral Resource estimate; Southern Stockwork (SSW), Northern Stockwork West (NSWW), Northern Stockwork East (NSWE) and surficial mineralisation. Mineralisation is modelled over a

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<sup>1</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).

strike length of approximately 1,900 m, and extends to 200 m below surface. Mineralisation varies in width from 2 to 20 m.

Table 1 Boorara Mineral Resource estimate, February 2015. Au > 0.3 g/t. Void blocks not reported.

JORC Classification	Weathering	Tonnage (t)	Au (g/t)	Ounces
Measured	Oxide	1,850,000	0.96	57,000
	Transitional	1,900,000	0.97	59,400
	Fresh	1,140,000	0.91	33,600
	<b>Total</b>	<b>4,880,000</b>	<b>0.96</b>	<b>150,000</b>
Indicated	Oxide	250,000	0.93	7,600
	Transitional	760,000	0.96	23,500
	Fresh	2,350,000	0.96	72,500
	<b>Total</b>	<b>3,360,000</b>	<b>0.96</b>	<b>103,600</b>
Inferred	Oxide	170,000	1.11	6,000
	Transitional	190,000	0.95	5,700
	Fresh	2,150,000	1.10	75,700
	<b>Total</b>	<b>2,500,000</b>	<b>1.09</b>	<b>87,300</b>
<b>Total</b>	<b>Total</b>	<b>10,750,000</b>	<b>0.99</b>	<b>340,900</b>

The Boorara Au deposit was historically sampled using diamond drilling (48 holes for 6,655.98 m), RC drilling (777 holes for 57,014 m), rotary air-blast (RAB) drilling (258 holes for 10,848 m) and trenching (17 trenches for 6,790 m) over numerous campaigns dating from 1980. Following MacPhersons' acquisition of the project in 2011, 22 diamond holes for 2,385.52 m and 116 RC holes for 10,249 m have been completed. The purpose of these holes was to test the validity of the historical database. MacPhersons noted that the results showed that mineralisation was intercepted where expected and is of similar tenor (Au g/t) to the historical data. The majority of drilling at Boorara has been completed on a 20 m x 20 m pattern, with the remainder 40 m (northing) x 20 m (easting). One area on the western contact of the Northern Stockwork prospects was drilled to 10 m x 5 m spacing for grade control purposes and much of the Southern

Stockwork has been drilled on a 20 m x 10 m pattern. The dip angle of the 2013 and 2014 drill holes was designed to intersect the mineralisation at the most optimal angle to minimise sampling bias.

The geospatial locations of data in the historical database were translated from local grids or AMG84, to GDA94 (Zone 51) grid. All 2013 and 2014 drill hole collars were surveyed using a differential global positioning system (DGPS) by a licensed and locally based surveyor. The majority of historical drill collars were destroyed by surface rehabilitation work prior to MacPhersons' ownership of the project, however collars that were located were re-surveyed by the same licensed surveyor. The new collar surveys validated the grid transformation carried out by MacPhersons.

Down hole surveys from the recent drilling were obtained using a down hole single shot camera tool within the drill rods every 30 m, in addition, all 2014 drill holes (diamond and RC) were surveyed down hole by a north seeking gyro tool.

An aerial photographic survey provided the topographic digital terrain model (DTM), with an accuracy of 0.01 m.

Drill core was sampled at MacPhersons' secure sample storage facility at the adjacent Nimbus project site, with half core samples cut according to MacPhersons' standard operating procedures. Recent RC drill samples were collected via a drill rig mounted cone splitter. Historical drill samples used in the Mineral Resource estimate were analysed for Au using Fire Assay techniques, with either 30 g or 50 g pulverised sub-samples used. All recent drill samples were analysed using Fire Assay techniques using a 50 g sub-sample, at ALS in Perth or Kalgoorlie. QA/QC protocols were implemented to monitor the precision and accuracy of the analyses, using Certified Reference Materials, field duplicates and lab duplicates.

Information pertaining to drilling, sampling, assaying, tenure of the property, and technical aspects of the Mineral Resource estimate are provided in JORC Table 1, Sections 1 through 3, which is presented as an appendix to this summary.

The drill hole data is maintained in a secure relational database by MacPhersons. Sufficient QC data has been collected to verify the integrity of the MacPhersons drilling assay data. QC information related to the historical drilling database and completion of diamond core drilling in 2013 verified the quality of the historical database.

Mineralisation models were prepared for Au using lower cut-off grades of 0.3 g/t Au. Wireframes were created joining polygons based upon a geological model of the deposit derived from diamond drill core logs, geological logs of RC drill data, and geological observations on surface. The Mineral Resource model consists of 97 zones of Au mineralisation, with 45 domains in the NSWW, 18 domains in the NSW, 29 domains in the SSW, and 5 domains in the flat lying 'surface' domains. Three weathering domains (oxide, transitional and fresh) were interpreted. Wireframed domains were extrapolated along strike or down plunge to half the section spacing or before this limit if a barren hole cut the plunge extension.

Top cuts were used to constrain extreme grade values if it was determined that the grades would potentially over-estimate local block estimates, either due to limited sample numbers, or if the individual assay result was considered too high compared to the rest of the domain's population. Top cuts vary according to the host mineralisation domain and were determined from an analysis of the non-composited data. All samples were composited to 1 m intervals, with the exception of the 'surface' domains, which were composited to 2 m intervals, based upon a review of sample length distribution. All diamond core and

RC drill hole data were utilised in the grade interpolation. Samples from RAB and other drill hole types were excluded.

A block model with a parent cell size of 4 m E by 20 m N by 5 m RL was constructed compared to a typical drill spacing of 10 m (northing) by 10 m (easting) within the volume classified as Measured. The majority of the Mineral Resource within the Oxide weathering domains was drilled on a 20 m (northing) by 20 m (easting) pattern, with sample spacing getting considerable wider with increasing depth.

A statistical analysis of the Au population by mineralisation area (NSWW, NSW, SSW and Surface), and by mineralisation domain, weathering domain, hole type, and a combination of these, was conducted on both the non-composited and composited drill data. A variogram study was carried out on domains with the greatest quantity of data. Log variograms were modelled and the back transformed parameters were used for grade interpolation. The variogram studies showed the Boorara mineralisation has a relatively high nugget effect, implying that a large sample population would be required to interpolate a single block. A shallow to moderate northerly plunge was also modelled in the stockwork domains.

Grade estimation was carried out using Ordinary Kriging (OK) with Inverse Distance Squared (IDS) estimation concurrently run as a check estimate. A minimum of 8 and maximum of 24 composited (1 m) samples were used in any one block estimate for Au for the NSWW, NSW and SSW mineralisation zones. A minimum of 8 and maximum of 24 samples (2 m composite lengths) were used for Au grade interpolation in the surface zones. A maximum of 4 composited samples per drill hole were used in any one block estimate. Grade interpolation was run within the individual mineralisation domains, acting as hard boundaries. The base of complete oxidation (BOCO) weathering profile was also used to split the grade interpolation by weathering zone.

Bulk density values were assigned according to rock type (ultramafic, dolerite or sediment), and the weathering profile (oxide, transition and fresh), according to Table 2.

*Table 2 Density assignments per lithology and weathering domain*

Rock Type	Weathering	Density (g/cm <sup>3</sup> )
Sediments	Oxide	1.60
	Transitional	2.20
	Fresh	2.60
Dolerite	Oxide	2.00
	Transitional	2.40
	Fresh	2.85
Ultramafic	Oxide	2.00
	Transitional	2.40
	Fresh	2.90

The Mineral Resource was depleted by the volume of the shallow open pits present in the area, which were incorporated into the topographic DTM. Wireframe solids representing underground voids (shafts, drives and stopes) from the early to mid-20th Century were built into the model, and the reported Mineral



Resource has excluded these volumes.

Metallurgical test work conducted by MacPhersons has demonstrated the Mineral Resource located within the oxide domain and transitional domains are amenable to heap leach processing.

The Mineral Resource is reported above a lower cut-off grade of 0.3 g/t Au, which is supported by metallurgical test work indicating that low grade ore of Au grade could be economically processed via heap leaching.

Grade tonnage tables are presented in Figure 1 to Figure 4.

The information in this report that relates to Mineral Resources is based on information compiled by Mr David Williams, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. David Williams is employed by CSA Global Pty Ltd, an independent consulting company. Mr Williams 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". David Williams consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Figure 1 Grade Tonnage Table and Curve, Total Mineral Resource.

Boorara Total Mineral Resource							
Au Cut g/t	Volume	Tonnes	Au g/t	Au Metal	Density	Au Ounces	
1.5	608,368	1,503,635	2.35	3,536,490	2.47	113,701	
1.4	732,874	1,806,442	2.20	3,973,840	2.46	127,762	
1.3	867,981	2,139,048	2.07	4,421,737	2.46	142,162	
1.2	1,011,564	2,493,296	1.95	4,864,293	2.46	156,391	
1.1	1,212,303	2,985,634	1.82	5,429,670	2.46	174,568	
1	1,445,791	3,552,978	1.70	6,024,465	2.46	193,691	
0.9	1,724,267	4,240,053	1.57	6,676,542	2.46	214,656	
0.8	2,075,167	5,103,168	1.45	7,408,789	2.46	238,198	
0.7	2,514,218	6,193,067	1.33	8,224,019	2.46	264,408	
0.6	3,052,770	7,544,322	1.21	9,101,205	2.47	292,611	
0.5	3,581,973	8,868,803	1.11	9,828,822	2.48	316,004	
0.3	4,334,006	10,746,833	0.99	10,604,687	2.48	340,949	
0.2	4,455,468	11,051,124	0.97	10,684,138	2.48	343,503	
0	4,502,344	11,168,817	0.96	10,699,839	2.48	344,008	

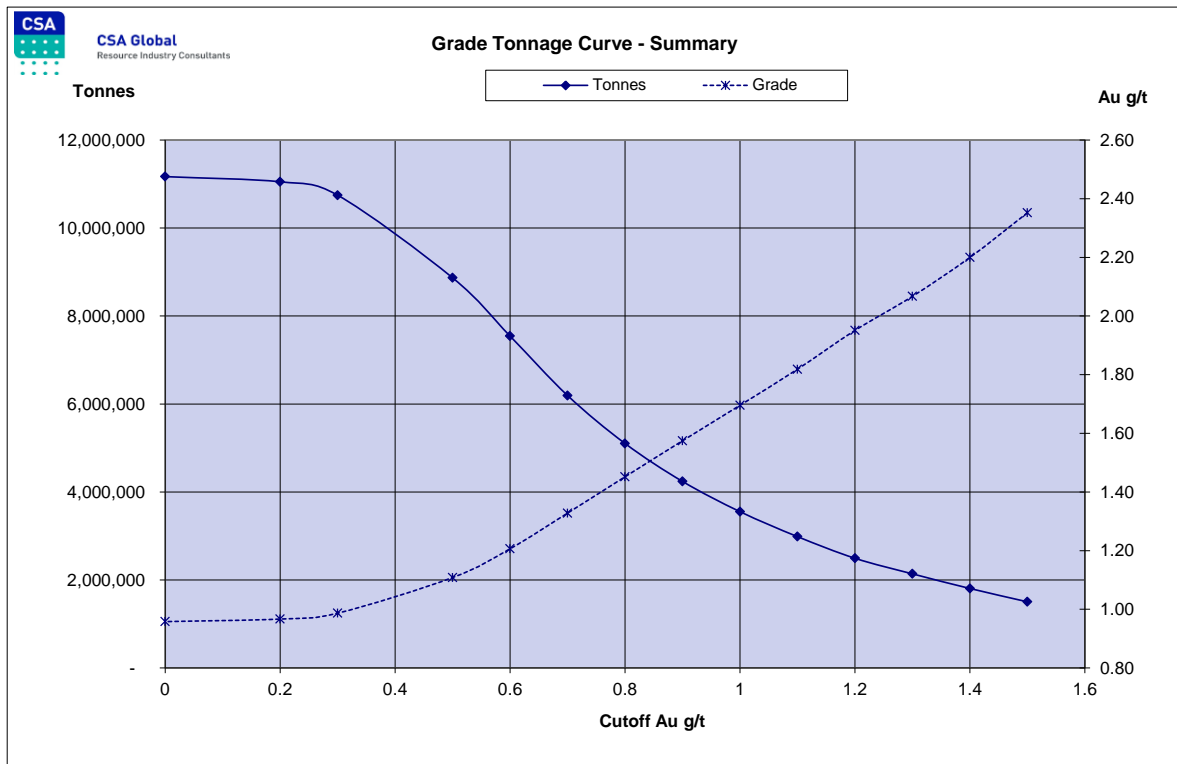


Figure 2 Grade Tonnage Table and Curve, Total Measured Mineral Resource.

Boorara Measured Mineral Resource							
Au Cut g/t	Volume	Tonnes	Au g/t	Au Metal	Density	Au Ounces	
1.5	278,146	638,346	2.16	1,377,459	2.30	44,286	
1.4	336,236	768,051	2.04	1,565,253	2.28	50,324	
1.3	407,766	929,917	1.92	1,783,170	2.28	57,330	
1.2	481,535	1,094,959	1.82	1,989,312	2.27	63,958	
1.1	583,657	1,325,034	1.70	2,253,622	2.27	72,456	
1	717,461	1,628,052	1.58	2,571,117	2.27	82,663	
0.9	860,324	1,949,404	1.48	2,875,935	2.27	92,463	
0.8	1,052,273	2,385,949	1.36	3,246,862	2.27	104,389	
0.7	1,272,586	2,892,686	1.25	3,626,385	2.27	116,591	
0.6	1,518,057	3,459,002	1.15	3,993,657	2.28	128,399	
0.5	1,772,075	4,048,566	1.07	4,318,039	2.28	138,828	
0.3	2,128,649	4,884,611	0.96	4,666,573	2.29	150,034	
0.2	2,178,439	5,000,752	0.94	4,697,106	2.30	151,015	
0	2,191,577	5,031,539	0.93	4,701,355	2.30	151,152	

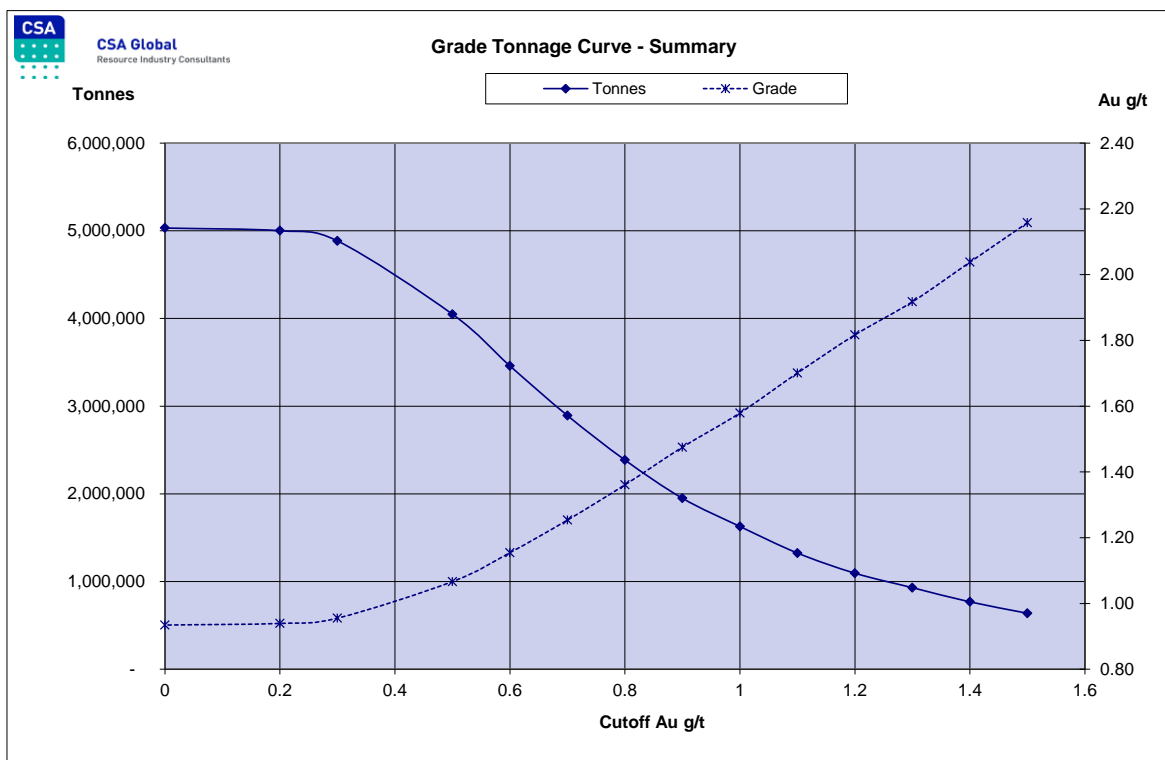


Figure 3 Grade Tonnage Table and Curve, Total Indicated Mineral Resource.

Boorara Indicated Mineral Resource							
Au Cut g/t	Volume	Tonnes	Au g/t	Au Metal	Density	Au Ounces	
1.5	197,520	521,378	2.11	1,098,745	2.64	35,325	
1.4	234,286	620,134	2.00	1,241,420	2.65	39,913	
1.3	268,905	713,264	1.92	1,366,916	2.65	43,947	
1.2	310,484	825,228	1.83	1,506,748	2.66	48,443	
1.1	360,441	957,068	1.73	1,658,480	2.66	53,321	
1	417,844	1,107,775	1.64	1,816,649	2.65	58,407	
0.9	499,187	1,323,610	1.53	2,021,561	2.65	64,995	
0.8	585,632	1,550,158	1.43	2,213,872	2.65	71,178	
0.7	697,732	1,843,888	1.32	2,432,724	2.64	78,214	
0.6	860,918	2,275,712	1.19	2,712,194	2.64	87,199	
0.5	1,035,931	2,728,773	1.09	2,962,329	2.63	95,241	
0.3	1,275,991	3,362,011	0.96	3,221,236	2.63	103,565	
0.2	1,316,626	3,469,559	0.94	3,249,269	2.64	104,466	
0	1,324,656	3,489,721	0.93	3,252,413	2.63	104,567	

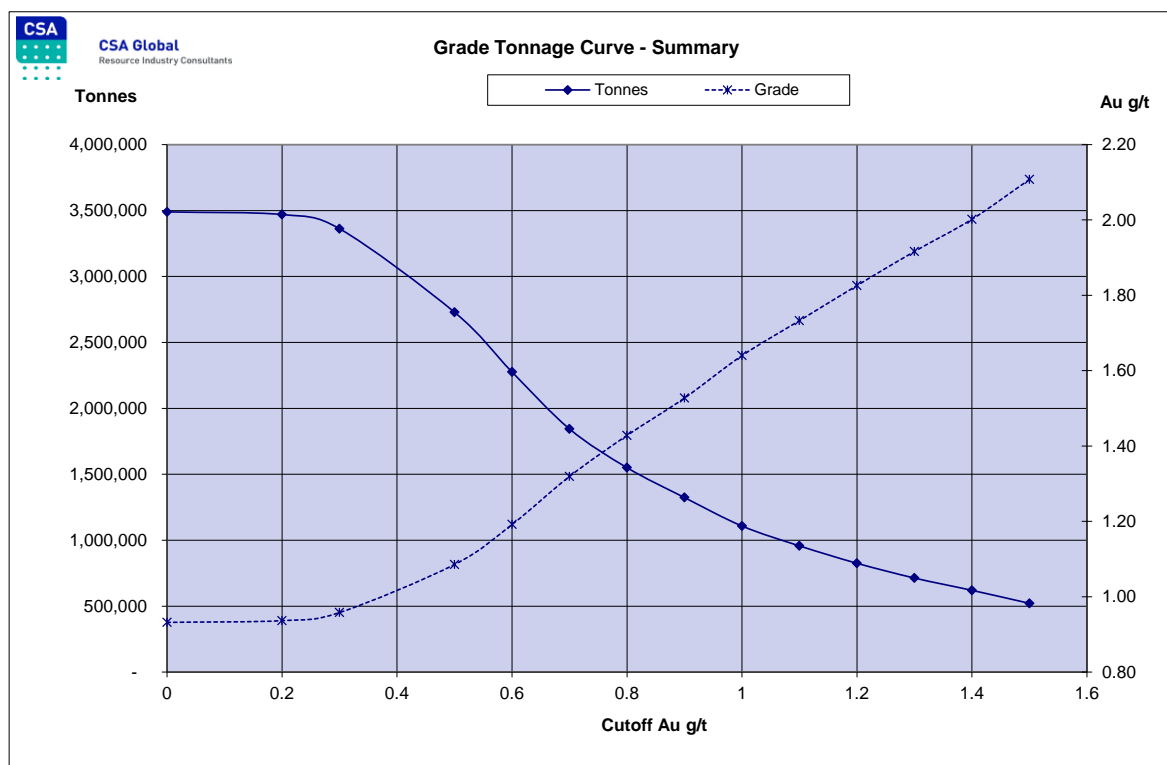
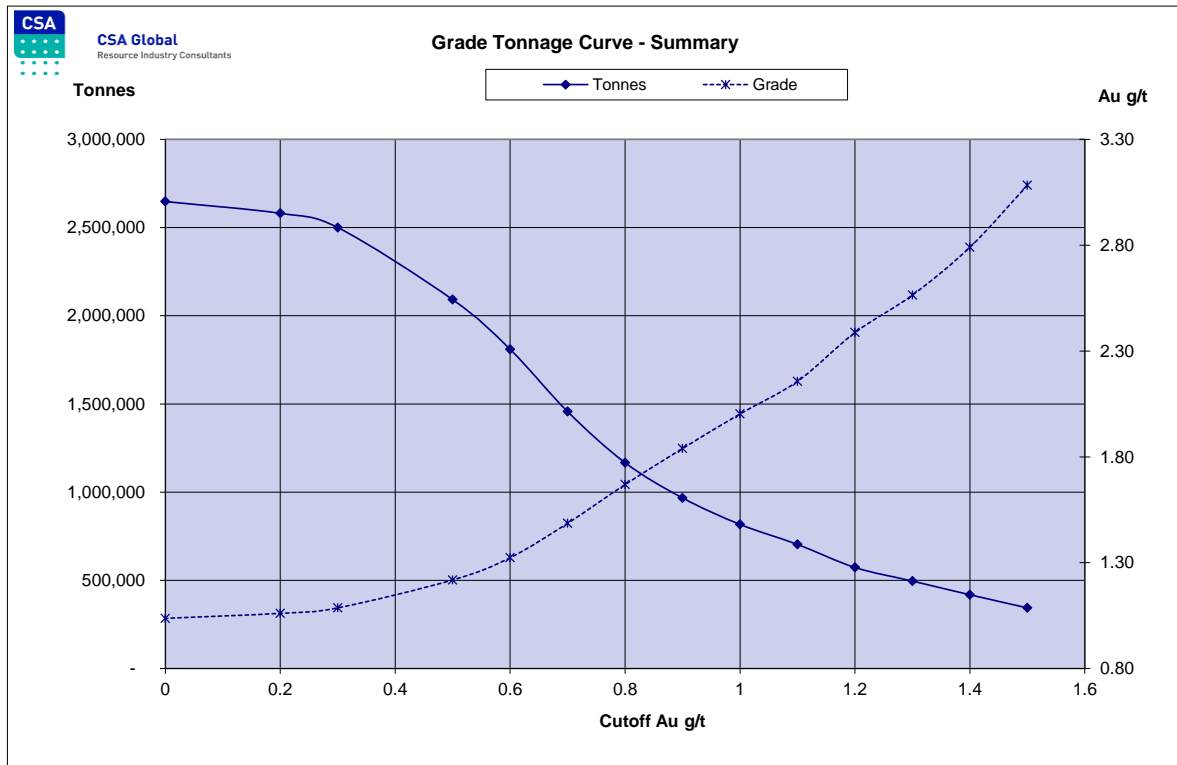


Figure 4 Grade Tonnage Table and Curve, Total Inferred Mineral Resource.

Boorara Inferred Mineral Resource							
Au Cut g/t	Volume	Tonnes	Au g/t	Au Metal	Density	Au Ounces	
1.5	132,703	343,912	3.08	1,060,286	2.59	34,089	
1.4	162,353	418,257	2.79	1,167,167	2.58	37,525	
1.3	191,310	495,867	2.56	1,271,652	2.59	40,885	
1.2	219,545	573,108	2.39	1,368,233	2.61	43,990	
1.1	268,206	703,532	2.16	1,517,568	2.62	48,791	
1	310,487	817,151	2.00	1,636,699	2.63	52,621	
0.9	364,757	967,038	1.84	1,779,047	2.65	57,198	
0.8	437,263	1,167,061	1.67	1,948,056	2.67	62,631	
0.7	543,900	1,456,493	1.49	2,164,911	2.68	69,604	
0.6	673,795	1,809,608	1.32	2,395,353	2.69	77,012	
0.5	773,968	2,091,464	1.22	2,548,453	2.70	81,935	
0.3	929,366	2,500,211	1.09	2,716,878	2.69	87,350	
0.2	960,403	2,580,812	1.06	2,737,762	2.69	88,021	
0	986,111	2,647,557	1.04	2,746,071	2.68	88,288	



# JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	<p>1. <i>Nature and quality of sampling (eg 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.</i></p>	<p>The Boorara Au deposit was historically sampled using diamond drilling (48 holes – 6,655.98m), reverse circulation (RC) drilling (777 holes-57,014m), RAB drilling (258 holes-10848m) and trenching (17 trenches-6790m) over numerous drilling campaigns dating from 1980.</p> <p>MacPhersons Resources Ltd (MRP) purchased the property in 2011; the data base acquired with the property was assessed and deemed to be valid for use in a Mineral Resource estimation (MRE).</p> <p>MRP have completed two diamond core drilling programs at Boorara, in 2013, 10 holes for 809.58m and in 2014 a recently completed program of 10 holes for 1,404.95m. The 2013 program was completed to confirm mineralisation from historical drilling whilst the 2014 drilling was initially for geotechnical data required for pit designs with some holes deepened to give more data on the limits of the existing resource model.</p> <p>MRP have recently completed a 117 hole RC drilling program for 10,237m. This drilling was predominantly infill drilling to improve confidence in the resource model with some testing of peripheral targets.</p> <p>Only diamond drill holes and reverse circulation drill holes were used in the MRE completed in 2013. Documentation regarding the quality of sampling from the historical drilling is summarised in Table A.</p>
	<p>2. <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p>	<p>Diamond core from the 2013 and 2014 drilling programs was cut and sampled according to lithology and prospective mineralisation intervals with minimum lengths of 0.25m and maximum lengths of 1.3m. Appropriate QAQC protocols were followed, including submission of field duplicates and insertion of commercial standards. Some sample intervals are longer but include zones of core loss.</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		RC drilling is sampled on a 1m interval basis with the entire drill hole sampled. Samples are collected from a rig mounted cone splitter. The splitter is regularly cleaned to ensure no cross contamination and the drill progress is paused every metre for about 2 seconds to allow that metre sample to be collected without mixing from the following metre. QAQC control samples (blanks and standards) are inserted into the sample string at every 30 <sup>th</sup> sample or thereabouts.
	3. <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	<p>The 2013 and 2014 diamond drilling has successfully validated historical drilling records and previous optimisation studies. The oriented drill core allowed for advanced geological, structural, geotechnical and density studies. The diamond drilling confirmed zones of mineralisation identified in historical drilling and geological interpretations and that mineralisation is related to either veining, alteration and sulphide assemblages or a combination of those.</p> <p>RC drilling recently completed occurred in infill zones previously covered by RAB method drilling which is unsuitable for resource estimation and in zones where the resource category could be upgraded. Drilling has also confirmed previously identified zones of mineralisation on the western and eastern contacts of the host dolerite and in some zones of mineralisation that occur in the “core” of the dolerite in the Northern Stockworks zone.</p>
	4. <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘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 (eg submarine nodules) may warrant disclosure of detailed information.</i>	<p>Historical drilling has undergone a variety of sub-sampling techniques, where documented, these are presented in Table A.</p> <p>For MRP drilling, between 2 and 4kg of sample (core or RC) is crushed to a 70% nominal size of 2mm or 6mm. Samples are split 50:50 using a riffle splitter and the coarse reject retained. The split sample is pulverised to 85% passing 75 microns. Analysis was variable depending on the assay protocol with four different protocols used to date at Boorara – protocols 18, 21, 23 and 28.</p> <p>The assay protocols are summarized in MRP internal memorandum “MRP MASTER Assay Protocols_2014-02-17”.</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drilling techniques	5. <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i>	<p>The deposit was sampled pre-MRP using diamond drilling (48 holes – 7,465.56m), reverse circulation (RC) drilling (777 holes-57,014m), RAB drilling (258 holes-10,848m) and trenching (17 trenches-6,790m) over numerous drilling campaigns dating from 1980. MRP purchased the property in 2011; the data base acquired with the property was assessed and deemed to be valid for use in the Mineral Resource.</p> <p>MRP drilling consists of 20 diamond drill holes (2,211.13m) and 117 RC holes (10,237m). MRP diamond drilling was HQ triple tube core from the surface. All core was orientated using a Reflex orientation device. RC drilling was both Conventional and Face-Sampling hammer. Only samples from diamond drill holes and reverse circulation drill holes were used in the MRE.</p>
Drill sample recovery	6. <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<p>Diamond core recovery is logged and recorded in the database. Some core loss was recorded in both diamond core drilling programs typically in strongly weathered zones and also where man made voids exist. Sample recoveries are also recorded for every metre of RC drilling and sample weights from the laboratory are also recorded.</p> <p>MRP's standard QAQC procedures were used on all drilling to ensure the highest level of logging and documentation procedures were deployed.</p>
	7. <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<p>MRP - HQ3 core drilled to increase sample size. Triple tube equipment used, short drill runs, slow drill rotation speed, pump/slide core from core barrel, use of key drill muds &amp; lubricants, regular change drill bits. For RC drilling, pausing the drilling at every metre reduces sample getting caked up inside rig cyclone. The cyclone is regularly cleaned to ensure sample is not getting built up.</p>



## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	8. <i>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.</i>	<p>Sample Recovery from mineralised zone is generally high from the MRP diamond and RC drilling. No information is available on the historical drilling recoveries.</p> <p>No significant bias is expected, and any potential bias is not considered material at this stage of resource development.</p>
Logging	9. <i>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.</i>	<p>Diamond core and RC drill chips underwent detailed logging through the entire hole (at 1m intervals for RC chips), with record kept of colour, lithology, degree of oxidation, alteration, mineralisation, water table etc. Diamond core was geotechnically logged for recovery and RQD and also structurally using alpha and beta measurements. Alpha and beta data is then converted to dip and dip direction measurements. Downhole acoustic or optical televiewer surveys were undertaken on the 2014 diamond holes and interpretation of this data was completed by an external consultant. Selected representative core samples from each diamond hole were sent for rock property testing.</p> <p>MRP diamond core trays have been stored at the project site for future reference and all core was photographed wet and dry.</p>
	10. <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<p>Diamond core and RC chip logging is both qualitative and quantitative in nature and included records of lithology, oxidation state, colour, mineralisation, alteration and veining observations as well as measurements of vein width and orientation. Core was photographed in both dry and wet form.</p>
	11. <i>The total length and percentage of the relevant intersections</i>	<p>All drill holes were logged in full and sampled in full (100%).</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<i>logged.</i>	
<i>Sub-sampling techniques and sample preparation</i>	<i>12.If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<p>Diamond core was sawn in half and the same half was always sampled with the residual sample half showing all orientation, sampling and identification markings. MRP's standard procedures deployed.</p> <p>Some of the remaining half diamond core has been collected for metallurgical testwork and in some of the 2013 holes there is no core remaining. Some of the 2014 core may be used for this purpose at a later date and generally what is taken is outside of mineralised zones as they are being tested for pit wall properties.</p>
	<i>13.If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	For historical RC drilling undertaken before 1987 the sub sampling technique is unknown. Historical drilling from 1987 onwards has been split using a riffle splitter. It is unknown whether wet RC samples were collected. Recent MRP RC drilling has utilised a rig mounted cone splitter.
	<i>14.For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	MRP sample preparation and analysis were completed by ALS in Perth or Kalgoorlie. When received at ALS samples were processed by code PREP-31 - logged in tracking system once a bar code was attached, wet samples were dried through ovens, fine crushing to better than 70% passing 2mm, split sample using riffle or rotary splitter with splits pulverised to >85% sample passing 75µm.

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<i>15. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<p>MRP sample strings had and certified reference materials (standards) and site prepared blanks submitted for quality control. Some field duplicates were also included in RC samples. The laboratory provided sample duplicates from pulps as well as their own internal control samples.</p> <p>Historical drilling had duplicates, repeats, standards and round robin laboratory checks undertaken. The QAQC procedure and methodology varied from company to company.</p>
	<i>16. 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.</i>	<p>MRP has undertaken an analysis of the QAQC of the all Boorara and this is reported on a monthly basis in internal company reporting.</p> <p>A summary of historical drilling QAQC is summarized in MRP internal Excel table "HistoricBooraraCentral_QAQC_Data_2013-08-06".</p>
	<i>17. Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<p>The sample sizes are considered appropriate for the style of mineralisation at Boorara, although there is variability in the repeat assay results and appears to be attributable to mineralogical heterogeneity.</p>
<i>Quality of assay data and laboratory tests</i>	<i>18. The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>All of the MRP diamond drill core samples were analysed via a 50 gram fire assay and 3 diamond holes had additional Au via 500 gram LeachWell™ 24 hour bottle roll assaying. Historical RC drill samples have analysed for Au via 50 gram Fire Assay, 30 gram Fire Assay, Screen Fire Assay, and 20 gram Aqua Regia.</p> <p>The nature, quality and appropriateness of the assaying and laboratory procedures are industry standard for Archaean mesothermal lode gold deposits.</p>

**JORC Code, 2012 Edition – Table 1 Report Template**

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		The fire assay technique will result in a 'total' assay result and these assays are prioritised over the LeachWell™ for the MRE.
	<i>19. 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.</i>	<p>Sampling techniques, other than drill hole samples already discussed, were not utilised as part of the Boorara MRE.</p> <p>Handheld XRF was deployed to examine for preliminary chemical and mineralogical signatures which may help in identifying obscure lithological contacts and also pathfinders to mineralisation.</p>
	<i>20. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	MRP has undertaken an analysis of the QAQC of the 2013-14 Boorara drilling. The levels of assaying accuracy and precision are acceptable. The variance in duplicate sampling results appears to be attributable to mineralogical heterogeneity. MRP has procedures in place for failed control samples which can involve re-assaying batches of affected samples.
Verification of sampling and assaying	<i>21. The verification of significant intersections by either independent or alternative company personnel.</i>	At least three different MRP personnel (geologists) visually verified intersections in diamond core and in RC chips.
	<i>22. The use of twinned holes.</i>	MRP initiated a programme of diamond drilling in mid-2013 to initially test the veracity of selected historical drill holes, and then to add to the Mineral Resource by targeting mineralisation down plunge or along strike of currently recognised mineralisation. Results from the drilling were successful, with mineralisation intercepted very close to where the 2010 grade tonnage model estimated the mineralisation to be, which in turn was based upon the historical drill holes. These results were released to the market by MRP.

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<p>23. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p>	<p>Historical database purchased with Boorara property in 2011</p> <p>2013 and 2014 MRP diamond drill hole data and 2014 RC drill hole data is collected in the form of spread sheets, for drill hole collars, surveys, lithology, assays and density.</p> <p>All data verified and validated by MRP geologists and imported into Gemcom GEMS™ (GEMS) database, licensed to MRP and maintained by MRP (Kalgoorlie).</p> <p>Hard copy of historical and MRP data is stored at Nimbus.</p>
	<p>24. Discuss any adjustment to assay data.</p>	<p>No adjustments are made to the primary assay data imported into the database.</p>
<p>Location of data points</p>	<p>25. 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.</p>	<p>Historical collars appear to be originally surveyed by surveyors. Surface rehabilitation work destroyed most collars. GDA94 collars coordinates generated by grid transformations for those surveyed in local grid or AMG84. Selected historical drill collars were located and re-surveyed by “Minecomp Pty Ltd” and this confirmed grid transformation data. Data from MRP validation drilling confirmed collar &amp; downhole survey data.</p> <p>MRP drill holes – Initial hole collar set out surveyed by licenced surveyor DGPS (0.01m accuracy). Drill rig set up line established by surveyed backsight and foresight pegs. Hole dip was checked with clinometer on drill mast. Down hole</p>

## JORC Code, 2012 Edition – Table 1 Report Template

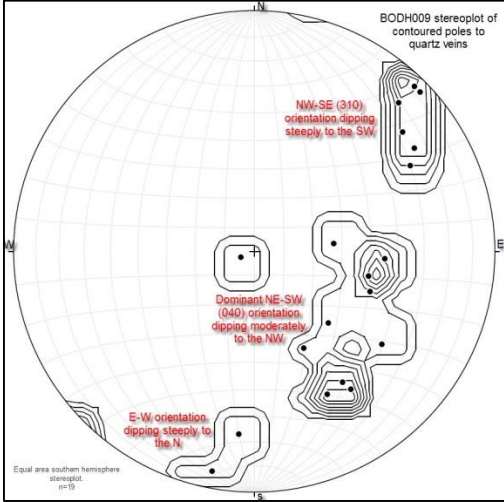
Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		<p>surveys at 30m intervals using single shot "Reflex Camera +/- 0.1<sup>0</sup> by drill contractor. 2014 diamond drill holes were also downhole gyro surveyed as are some of recent RC drill holes.</p> <p>Final hole collar locations (post drilling) surveyed by licenced surveyor (Minecomp Pty Ltd) DGPS (0.01m).</p>
	<i>26. Specification of the grid system used.</i>	<p>Historical – collar locations for RC and diamond core holes checked and transformed from Boorara Mine Grid to GDA 94 Zone 51 co-ordinates.</p> <p>MRP collars recorded in MGA GDA 94 Zone 51 co-ordinates.</p>
	<i>27. Quality and adequacy of topographic control.</i>	<p>Historical – Aerial photography used to produce digital surface topographic maps at 1:2500 1m contours.</p> <p>2011 - Fugro Spatial Solutions Pty Ltd detailed aerial photographic survey. Ortho rectification and mosaicking performed using Inpho Digital Photogrammetric Systems. Expected accuracy of detail within 0.8mm at the ortho-image map scale.</p> <p>Topographic control is from an aerial photographic survey completed during 2012 with accuracy within 0.01m.</p>
<i>Data spacing and distribution</i>	<i>28. Data spacing for reporting of Exploration Results.</i>	<p>The majority of drilling at Boorara is close spaced 20m line x 20m hole, with the remainder 40m line x 20m hole. One area on the western contact in the Northern Stockworks was grade control drilled to 10m x 5m spacing and much of the Southern Stockworks is 20m by 10m.</p>
	<i>29. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve</i>	<p>The current MRE is based on historical drill hole data and 2013 MRP diamond core data.</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<i>estimation procedure(s) and classifications applied.</i>	<p>Historical - 777 RC holes &amp; 58 diamond core holes considered reliable quality assurance to include in MRE. The historical database was also validated by CSA Global as part of their independent appraisal of the project.</p> <p>2013 MRP - 10 diamond core holes to mostly validate previous drill intercepts and geological interpretations.</p> <p>2015 CSA Global – 2 diamond core holes and 117 RC holes were drilled to fill gaps in the drill hole footprint, and to increase the confidence in the geological models.</p> <p>The MRE is classified as Measured, Indicated and Inferred according to JORC (2012) Code reporting criteria. The portions of the MRE upgraded from Indicated to Measured and Inferred to Indicated, since the 2014 MRE, is based upon drill hole spacing, sample quality control, quantity of density data available and the confidence in the geological model used as a template for the Mineral Resource Estimate.</p>
	<i>30. Whether sample compositing has been applied.</i>	Compositing was undertaken with historic RC samples via 3 metre composites and 4 metres composites. One metre samples were split using a riffle splitter for anomalous intervals.
<i>Orientation of data in relation to geological structure</i>	<i>31. Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The May-June 2013 MRP diamond drill holes were orientated 060°/-60° 130°/-60°. These holes targeted two orientations of gold mineralisation, the 040°/25°NW quartz vein sets seen at Cataract Cross Lode and throughout Boorara and the 320° sub vertical shear zone hosted mineralisation. Structural measurements of quartz veins taken from diamond core confirmed these two orientations.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<p>32. <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	 <p>Historical drill azimuths vary from 060°, 150°, 240° and 270° degrees.</p> <p>MRP diamond drill holes were drilled to be as normal as possible to the two main mineralised orientations.</p>
<p>Sample security</p>	<p>33. <i>The measures taken to ensure sample security.</i></p>	<p>Chain of custody is managed by MRP. Sample pulps and coarse rejects are stored at ALS Malaga and then returned to MRP after a few months. Field samples are delivered to the assay laboratory in Perth or Kalgoorlie and are transported in cable tied bags and in bulka bags. Whilst in storage, they are kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples.</p>





MACPHERSONS

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<i>Audits or reviews</i>	<i>34. The results of any audits or reviews of sampling techniques and data</i>	Goodz (2013) is satisfied that the adequacy of sample preparation, sample security and analytical procedures support the MRE classification discussed and are of industry standard.

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

Table A

DRILL PROGRAM	HOLE TYPE	COUNT	CUMULATIVE LENGTH	YEAR	ASSAY LAB	CHECK/UMPIRE LAB	COMPANY	REPORT QAQC
BRC001-004	RC	4	175.00	1980	Unknown		Texasgulf Australia Ltd	"In general all holes were sampled at 1m intervals with fire assay for Au being the primary method of analysis. Some analysing for Au by AAS techniques were undertaken during the R.C. program and all anomalous R.C samples were reanalysed by fire assay. A number of check assays have been completed on the more significant results"
BRD001-005	DDH	5	892.32	1980	Unknown		Texasgulf Australia Ltd	"In general all holes were sampled at 1m intervals with fire assay for Au being the primary method of analysis....A number of check assays have been completed on the more significant results"
BRD006-008	DDH	3	485.40	1981	Unknown		Texasgulf Australia Ltd	"In general only the significant quartz dolerites, tuffs, mafics and ultra-mafic volcanics were sampled. Where possible a 1m sample interval was used and analysed for gold by fire assay. A number of check assays have been completed on the most significant results."
BRC005-020	RC	16	863.00	1982	Unknown		Texasgulf Australia Ltd	"A 1m sample interval was used and analysed for gold by fire assay (FA 30 technique)."
BRD009-010	DDH	2	324.91	1982	Unknown		Texasgulf Australia Ltd	"In general only the sulphidic quartz dolerites and ironstained quartz dolerites were sampled. A 1m sample interval was used and analysed for gold by fire assay (FA 30 technique)."
BNZR001-003	RC	3	276.00	1985	SGS		Western Reefs Ltd	"Routine analysis of gold was carried out on all the assayed intervals using a 50gm standard fire assay by SGS Laboratories in Kalgoorlie and Perth. All RC samples were collected and prepared using standard techniques or splitting and batching to optimise sample fraction size distribution." Dmountford B.R.

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								(1985) " <b>Laboratory Technique</b> - SG Hammer mill Rotary Split. Fire assay on 50g charge. <b>Comment</b> - Holes partly assayed. Hammer mill product gives 50% -80mesh with minor chips to 1.5mm." Verbeek P.A. (May 1985 -September 1986)
BSZD001-008	DDH	8	818.30	1985	SGS		Western Reefs Ltd	"Routine analysis of gold was carried out on all the assayed intervals using a 50gm standard fire assay by SGS Laboratories in Kalgoorlie and Perth. Diamond core was cut using a diamond saw and half core width submitted for assay." Dmountford B.R. (1985) " <b>Laboratory Technique</b> - SGS Hammer mill rotary split. Fire assay on 50g charge. <b>Comment</b> - PHASE 1 OF DRILLING. Very few check samples." Verbeek P.A. (May 1985 -September 1986). Later testing in 1986 "Laboratory Technique - RDL - Disc pulveriser. Fire assay on 50g charge and GENALYSIS - mixer mill 20g charge AAS. Comment - Resubmit samples for checks plus assays on interval not previously submitted. Poor repeatability on some samples from RDL. Results inconclusive and therefore more samples submitted." Verbeek P.A. (May 1985 - September 1986)
BSZR001-003	DDH	3	276.00	1985	SGS		Western Reefs Ltd	"Routine analysis of gold was carried out on all the assayed intervals using a 50gm standard fire assay by SGS Laboratories in Kalgoorlie and Perth. All RC samples were collected and prepared using standard techniques or splitting and batching to optimise sample fraction size distribution." Dmountford B.R. (1985) " <b>Laboratory Technique</b> - SGS Hammer mill rotary split. Fire assay on 50g charge. <b>Comment</b> - PHASE 1 OF DRILLING. Very few check samples." Verbeek P.A. (May 1985 -September 1986). Later testing in 1986 "Laboratory Technique - RDL - Disc pulveriser. Fire assay on 50g charge and GENALYSIS - mixer mill 20g charge AAS. Comment - Resubmit samples for checks plus assays on interval not previously submitted. Poor repeatability on some

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

								samples from RDL. Results inconclusive and therefore more samples submitted." Verbeek P.A. (May 1985 - September 1986)
BSZR004-080	RC	28	2517.00	1985	SGS	Genalysis	Western Reefs Ltd	"Routine analysis of gold was carried out on all the assayed intervals using a 50gm standard fire assay by SGS Laboratories in Kalgoorlie and Perth. All RC samples were collected and prepared using standard techniques or splitting and batching to optimise sample fraction size distribution." Dmountford B.R. (1985) <b>"Laboratory Technique</b> - RDL - Disc pulveriser. Fire assay on 50g charge and GENALYSIS - mixer mill 20g charge AAS. <b>Comment</b> - Resubmit samples for checks plus assays on interval not previously submitted. Poor repeatability on some samples from RDL. Results inconclusive and therefore more samples submitted." Verbeek P.A. (May 1985 - September 1986)
BSZR081-207	DDH	109	8982	1985	Genalysis		Western Reefs Ltd	<b>"Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)
BCZR001-02	RC	2	184	1986	Genalysis		Western Reefs Ltd	<b>"Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)
BEZD001	DDH	1	64	1986	Genalysis		Western Reefs Ltd	<b>"Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)
BEZR001-015	RC	15	978	1986	Genalysis		Western Reefs Ltd	<b>"Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

BNZD001-002	DDH	2	234	1986	Genalysis		Western Reefs Ltd	" <b>Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)
BSZD010-024	DDH	15	1413.9	1986	Genalysis		Western Reefs Ltd	" <b>Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)
BNZR029-035, BNZR037-038, BNZR067-070	RC	13	1172.00	1986	Genalysis		Western Reefs Ltd	" <b>Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge found to be better still in producing results." Verbeek P.A. (May 1985 -September 1986)
BNZR004-023	RC	20	1839.00	1986	SGS		Western Reefs Ltd	<b>Laboratory Technique</b> - SGS Hammer mill Rotary Split. Fire assay on 50g charge. <b>Comment</b> - Poor repeatability on check samples. Test work indicates disc-pulverised of entire sample before splitting gave more consistent results. Select check samples from BNZR 1-16. less erratic intervals plus slightly higher ppm Au average." Verbeek P.A. (May 1985 - September 1986)
BNZR024-028	RC	5	460.00	1986	SGS		Western Reefs Ltd	<b>Laboratory Technique</b> - SGS Disc-pulveriser/riffle split. Fire assay on 50g charge." Verbeek P.A. (May 1985 -September 1986)
BNZR039	RC	1	90.00	1986	RDL		Western Reefs Ltd	<b>Laboratory Technique</b> - RDL Hammer mill to 80µ mesh. Fire assay on 50g charge. <b>Comment</b> - Very Poor repeatability on check samples. RDL no longer used." Verbeek P.A. (May 1985 -September 1986)
BNZR040	RC	1	92.00	1986	Genalysis		Western Reefs Ltd	<b>Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. GENALYSIS hammer mill AAS on 20g charge. <b>Comment</b> - Test work comparing techniques. Mixer mill found to be more reliable although downgrading overall Au value (10-15%). Mixer mill producing more homogenous sub sample." Verbeek P.A. (May 1985 -September 1986)
BNZR041-66	RC	26	2392.00	1986	Genalysis		Western Reefs Ltd	<b>Laboratory Technique</b> - GENALYSIS mixer mill AAS on 20g charge. <b>Comment</b> - Larger charge gave more

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								consistent result. Cost effective." Verbeek P.A. (May 1985 -September 1986)
BNZR036 BNZR124	RC	1	92.00	1986	Genalysis		Western Reefs Ltd	<b>Laboratory Technique</b> - GENALYSIS hammer mill AAS on 20g charge. <b>Comment</b> - Most cost effective. Test work to determine mixer mill product. Screen fire assays used as standards. Results indicate Mixer Product more consistent although slightly (10-15%) downgrading overall Au value.." Verbeek P.A. (May 1985 -September 1986)
BSZD009	DDH	1	92.70	1986	SGS	RDL	Western Reefs Ltd	Further analysis carried out in 1986 - " <b>Laboratory Technique</b> - SGS Hammer mill rotary split. Fire assay on 50g charge. and Duplicates to RDL - disc pulveriser. Fire assay 50g charge. <b>Comment</b> - Poor repeatability of RDL sample checks." Verbeek P.A. (May 1985 -September 1986)
BC001	DDH	1	153	1987	Sheens		Western Reefs Ltd	"In the case of the underground diamond drill hole (BC-1) sampling was at random intervals up to a maximum of 1m width. All samples from this hole were analysed for gold by Fire Assay technique (Sheen Analytical Services) and a portion of these checked against AAS analysis by Genalysis Laboratories."
BCZR003-023	RC	21	1263	1987	Genalysis		Western Reefs Ltd	"All sampling of the drill holes ... was at 1m intervals. These samples were riffle split on site and submitted to Genalysis Laboratories for Mixer-mill preparation and AAS gold analysis resplits of the original sample were taken at 20m intervals and submitted under different sample numbers to test the repeatability of assay results. Where drilling passed through unprospective horizons the 1m sample intervals were composite to 3m in order to minimize costs. Anomalism in any sections of the composite samples were resplit and assayed at 1m intervals."
BNZR071-072	RC	2	130	1987	Genalysis		Western Reefs Ltd	"All sampling of the drill holes ... was at 1m intervals. These samples were riffle split on site and submitted to Genalysis Laboratories for Mixer-mill preparation and AAS gold analysis resplits of the original sample

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								were taken at 20m intervals and submitted under different sample numbers to test the repeatability of assay results. Where drilling passed through unprospective horizons the 1m sample intervals were composite to 3m in order to minimize costs. Anomalism in any sections of the composite samples were resplit and assayed at 1m intervals."
BEZR016-019	RC	4	240	1987	Genalysis		Western Reefs Ltd	"All sampling of the drill holes ... was at 1m intervals. These samples were riffle split on site and submitted to Genalysis Laboratories for Mixer-mill preparation and AAS gold analysis resplits of the original sample were taken at 20m intervals and submitted under different sample numbers to test the repeatability of assay results. Where drilling passed through unprospective horizons the 1m sample intervals were composite to 3m in order to minimize costs. Anomalism in any sections of the composite samples were resplit and assayed at 1m intervals."
CP20-26	RC	7	754	1987	Genalysis		Technomin Australia	"Two to four kilogram samples were bagged in one metre intervals and sent to Genalysis for analysis for gold and arsenic."
BRC021-196	RC	174	11410.00	1988	Sheens	AAL, Classics, Genalysis	Windsor Resources N.L.	"Each RC hole drilled was sampled at 1m intervals and assayed in 3 metre composites. All 3m composites returning values in excess of 0.2g/t or located in significant geological or structural zones have been resplit and re-assayed at 1m intervals. 1m samples were completely pulverised (2-3kg), fire assayed (50gm) followed by A.A.S. analysis for gold. Every 10th sample was re-read and every 20th had a duplicate 50gm split assayed. This work was performed by Sheens Analytical Service, in Kalgoorlie...Check assaying of Sheens' results indicated that their fire assaying may have underestimated grades by average or 7.75%." <b>APPENDIX 1 - CHECK FIRE ASSAYS</b> "Comparison of fire assay results produced by sheens Analytical Services with a check laboratory Genalysis for similar

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								<p>material indicated the results from the latter laboratory were 16% higher. These results initiated a thorough check of Sheens results. 100, 1 meter intervals covering a wide range of grades were submitted to Classic Comlabs for complete homogenisation and splitting into 4 identical 250 gram samples. These samples were then resubmitted to Classic Comlabs, Australian Assay Laboratories, Genalysis and Sheens Analytical for a round robin laboratory check using standard 50gm fire assay techniques. The results obtained are listed in.." <i>in sheet Check Fire Assays(1988)</i>. Windsor Resources (1988) <b>SUMMARY OF RESULTS</b> "A comparison of means (after obvious nuggetty values and values below 0.5g/t were removed from the data set) gave the following results. SHEENS 0.0 (taken as base value), A.A.L +7.27%, CLASSIC +8.2%, GENELYSIS +18.07%. It is assumed that Classic Comlabs and A.A.L fire assay techniques to be reliable. Classics have carried out 2 fire assays and often or gravimetric determination on each sample. Sheens therefore underestimate by 7.75% and also seem to have the greatest variability. This work indicates that a positive 7.75% increase may be added to grades obtained from the Southern Stockwork. Elsewhere at Boorara there are greater proportion of assay values derived from other laboratories, (including Sheens) used in calculations. It is expected that a lesser positive factor will need to be incorporated North of the Southern Stockwork." Windsor Resources (1988)</p>
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## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

BDH001-002	DDH	2	574.7	1989	Sheens	AAL, Classics, Genalysis	Windsor Resources N.L.	"The pre-collared percussion sampled were composited to form 3m assay samples and the diamond core split using a diamond saw to provide half core samples for fire assay." "A comparison of fire assay results produced by Sheens Analytical Services indicated that the results produced by the later laboratory were overall 16% higher. These results initiated a thorough check of Sheen's results. To determine the degree of discrepancy, a total of 100 1.0 meter sample intervals covering a wide range of grades were submitted to Classic Comlabs for complete homogenisation and splitting into 4 identical 250 gram samples. These samples were then resubmitted to Classic Comlabs for complete homogenisation and splitting into four (4) identical 250gm samples. These samples were then submitted to Classic Comlabs, Australian Assay Laboratories, Genalysis and Sheen's Analytical for a round robin laboratory check using the standard 50gm fire assay technique," (data in sheet Check Fire Assays(1988)repeated), "The results indicate that in comparison to other laboratories, Sheen's results have underestimated grades by average 7.75%." Bourke B. (April 1990)
B9O001-004	DDH with RC precollar	4	964	1990	Genalysis		Newmont	"Drill core was sawn and sampled on intervals of 1 metre or less. Intervals containing visible gold were earmarked for screen-fire assay and each core half with visible gold was purposely bagged. These samples were analysed by Genalysis Laboratories in Perth utilising a screen-fire technique... All other sample splits were submitted to Genalysis' Kalgoorlie Laboratory for crushing to nominal -200 mesh and 50gm fire-assay collection/ Atomic Absorption Spectrometry finish." SCREEN FIRE ASSAY - Screen Fire Assay is a technique used to establish a "true" value for Gold <also applicable to Platinum and Palladium) in a sample containing "coarse" gold

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								particles, where replicate single assays vary excessively. The method adopted at Genalysis is as follows:- Approximately 1.kg is split from the bulk pulp and the weight recorded <TOTWTI. This sub-sample is then sieved (dry) through 100 mesh nylon cloth. The coarse fraction is weighed (CORSWT) and the total coarse material, including ,including the nylon cloth is fired in a new pot and the micrograms of gold in the coarse material is calculated (Au=3) The fires are homogenised and duplicate 50gm portions are fire assayed and the results calculated in ppm (Au=1 and Au=2)." Newmont Australia Limited (1990).
RC	RC	13	1394.00	1991	Genalysis		Newcrest Mining Limited	"Samples were collected over 1m intervals through a cyclone and split through a compressor driven self-cleaning riffle splitter to obtain a 2kg sample for assay...Samples were submitted to Genalysis Laboratory Services Pty Ltd., in Kalgoorlie for preparation and gold and arsenic analysis...RC Percussion samples were assayed for gold by fire assay technique with 50g charge and AAS finish." Daley L. and Lewis C. (January 1992)
RC34DT	DDH	1	47.75	1991	Genalysis		Newcrest Mining Limited	"Selected sections of core were sampled over various intervals by halving the core lengthwise with a core saw...Samples were submitted to Genalysis Laboratory Services Pty Ltd., in Kalgoorlie for preparation and gold and arsenic analysis." The method of assay was not mentioned but assume gold by fire assay technique with 50g charge and AAS finish." Daley L. and Lewis C. (January 1992)
BOR1-117	RC	116	6396	1993	Genalysis		Mt Monger Gold Project	<b>Note:</b> Cannot find the associated report, only have the original lab assays and geology logs. Assays carried out by GENALYSIS Au Sample method B/AAS (FA/AAS BOR15 50-60m, BOR21 38-54m, BOR22 40-50m, BOR09 40-48m, BOR11 50-60m, BOR15 50-60m, BOR16 50-60m, BOR19 40-60m, BOR34 40-53m, BOR51 10-30m, BOR32 selected, Analysis

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								carried out on selected samples with Multilab BOR32,34 found in sheet Check Assays(1993).
CRC1-41	RC	39	2990	1996	Analabs, Genalysis	Genalysis	Fimiston Mining	"Samples from the drill rig were collected through a cyclone and split through a 1:8 three tiered riffle splitter. Four metre composite samples were collected in zones of limited prospectivity and the original one metre sample collected in zones of prospective mineralisation. Any 4 metre composite value above 0.2 g/t Au was resubmitted as the original one metre riffle split samples. Genalysis completed the majority of the analysis (DRC and NWRC series) with some of the CRC series drilling being submitted to Analabs."Coxhell S (1996). <b>Regarding all holes in Fimiston Mining 1996</b> - "Following the receipt of all assays the presence of significant quantities of coarse gold was recognised. There were numerous erratic assays of significant difference returned from the same pulp suggesting the presence of coarse gold. In an attempt to more accurately estimate the gold in the samples a comprehensive programme of screen fire assays was completed. "A total of 352 pulp samples were screen fire assayed and this work indicated in general a 10-15 % increase in the gold grades based on these samples. This work has positive implications if a mining operation can be established at Boorara." Coxhell S (1996). Notes attached to 535.0/967039(22/11/96) are as follows <b>SCREEN FIRE ASSAY</b> - Screen Fire Assay is a technique used to establish a "true" value for Gold (also applicable to Platinum and Palladium) in a sample containing "coarse" gold particles, where replicate single assays vary excessively. The method adopted at Genalysis is as follows: Approximately 1kg is split from the bulk pulp and the weight recorded (TOTWT) . This sub-sample is then sieved (dry) through 150 mesh nylon

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								cloth. The coarse fraction is weighed (CORSWT) and the total coarse material, including the nylon cloth, is fired in a new pot and the micrograms of gold in the coarse material is calculated (Au=3). The fine fraction is homogenised, duplicate 50gram portions are fire assayed, and the results calculated in ppm (Au=1 and Au=2). The "true" or "weighted mean" result for the sample (Au=4) is calculated from the formula. $Au=4 = [ (TOTWT-CORSWT) ([Au=1 + Au=2]/2) + Au=3 ] / TOTWT$ . Example Sample No. 12345 TOTWT (967.3) CORSWT (16.3) Au=1 (2.46) Au=2 (2.52) Au=3 (1250) Au=4 (3.74)"
DRC1-63	RC	57	3371	1996	Genalysis	Genalysis	Fimiston Mining	Samples from the drill rig were collected through a cyclone and split through a 1:8 three tiered riffle splitter. Four metre composite samples were collected in zones of limited prospectivity and the original one metre sample collected in zones of prospective mineralisation. Any 4 metre composite value above 0.2 g/t Au were resubmitted as the original one metre riffle split sample. Genalysis completed the majority of the analysis...DRC...series)" "Following the receipt of all assays the presence of significant quantities of coarse gold was recognised. There were numerous erratic assays of significant difference returned from the same pulp suggesting the presence of coarse gold. In an attempt to more accurately estimate the gold in the samples a comprehensive programme of screen fire assays was completed" Coxhell S (1996).

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

NWRC1-9	RC	13	786	1996	Genalysis	Genalysis	Fimiston Mining	Samples from the drill rig were collected through a cyclone and split through a 1:8 three tiered riffle splitter. Four metre composite samples were collected in zones of limited prospectivity and the original one metre sample collected in zones of prospective mineralisation. Any 4 metre composite value above 0.2 g/t Au was resubmitted as the original one metre riffle split samples. Genalysis completed the majority of the analysis...DRC...series)" "Following the receipt of all assays the presence of significant quantities of coarse gold was recognised. There were numerous erratic assays of significant difference returned from the same pulp suggesting the presence of coarse gold. In an attempt to more accurately estimate the gold in the samples a comprehensive programme of screen fire assays was completed" Coxhell S (1996).
MRC1-13	RC	12	1218	1996	Analabs, Genalysis		Fimiston Mining	"Initially 4 metre composite samples were collected and submitted to Analabs for multi element analysis. Anomalous samples were then split in the field and the one metre splits submitted to Genalysis for multi element analysis. Samples were assayed for gold, copper, lead, silver, antimony, arsenic and nickel." Coxhell S (1996).
MDH1-2	DDH	2	396	1996	Genalysis		Fimiston Mining	"All holes were pre-collared to approximately 100 metres followed by a 100 metre diamond tail...Core was collected in core trays and the core was then quickly logged and cut in half for analysis. Half core samples were submitted to Genalysis for multi element analysis." Coxhell S (1996). MDH were assayed in 1m intervals
PBNRC01-13	RC	13	1601	2006	Unknown		Polymetals	
PSRC06-09	RC	4	504	2006	Kalassay		Polymetals	Assayed by Kalassay Group Via ICPMS_6. No check assays recorded on the original assay sheets
PBWRC001-007	RC	7	840	2006	Unknown		Polymetals	

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

PNSWRC001-003	RC	3	294	2006	Unknown		Polymetals	
BOO1001-BOO1018	RC	18	1774	2009	Genalysis		Polymetals Ltd	"RC drillhole chip samples were collected via a riffle splitter mounted on the drill rig and submitted to Genalysis in Kalgoorlie for sample preparation and transfer to Genalysis' Perth laboratory for analysis. The sample was collected in pre-numbered calico bags from a riffle splitter mounted on the drill rig. The sample interval was 1m downhole with 1/8th split retained in the calico bag. The sample mass was typically 2-3 kg and drilled dry. The reject split at the rig was placed in a plastic bag. Sample masses were not determined. Visual estimates were made of sample recovery sample condition (both recorded in logs). Nearly all samples were dry and rarely wet. Poorer sample recovery was experienced in the first 1-2m and in damp clay zones. Sample recovery exceeded 75% most of the time. Sample volumes were consistent within a rock type and weathering type except in damp clays, where the volume was variable....The whole sample was pulverised (method code DR,SSMG) and sub sampled for assay. A duplicate subsample was taken after pulverising and has been reported by the laboratory as "check" assays. Repeat assays reported as Au2, Au3, and Au4 are duplicate samples of the original sub-sample Au1 taken after pulverising....4 <b>Acid Digest</b> Multi-acid attack including hydrofluoric, nitric, perchloric and hydrochloric acids in Teflon beakers with ICPOES and ICP-EOES finish. Suitable for dissolving silica based samples requiring low levels of detection. This digest approaches total dissolution for most minerals. Elements incorporated in highly resistant mineral may not be dissolved in the four acid digest. <b>Fire Assay</b> 50 gram lead collection fire assay using carefully selected fluxes specially formulated for the mineralogy of each sample type. Some reduction in charge weight may be

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

							<p>necessary for difficult sample matrices. This price includes lead waste disposal levy....The detailed report assessing QA/QC for this drilling program can be found in Appendix 1. Its contents are summarised below. Certified Reference Materials (CRMs) were submitted at an approximate frequency of 1:25 (4%). The CRMs were pre-packed 50g charges selected for gold content. The source of the CRMs was Geostats Pty Ltd. Five CRMs were used covering a range of gold grades including a “zero” standard which was below the lower detection limit for the analytical method for gold. The laboratory undertook duplicate sampling as follows: · Pulverised duplicate split 4% frequency · Pulp duplicate split after first pass assaying in selected samples 6% frequency No field sample duplicates were submitted. Analysis of the CRM results confirms that the assay laboratory has performed at an acceptable standard with one non zero CRM assay exceeding 3 standard deviations from the expected value. Consideration of the results for the pulverised duplicates and pulp duplicates indicate that the use of a 25g charge for the pulp duplicates as opposed to the 50g charge for the original assay and pulverised duplicate may be affecting the results for the pulp duplicates. The data indicates that: 1.The pulverised duplicate shows little or no bias 2.The pulp duplicate is biased and twice as likely to be lower than the original assay than higher 3. Both sets of duplicates have a considerable spread of results with 90% of the data having HARD around 25-30%</p> <p>The HARD at 90% is high for pulverised samples and suggests that coarse gold may be present. Previous workers at Boorara have noted the presence of coarse gold and it is concluded that this may be reflected in the spread of results for the duplicate assays. 129 samples have been selected for screen fire assays</p>
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## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 05  
 Date: 2015-02-20  
 Owner: Geology Manager

								<p>screened at 106 microns. 30 of these will also be run as screen fire assay duplicates. In total 159 screen fire assays will be available to assess the possible effects of coarse gold. The precision of routine fire assaying may never be high enough to report anything other than Indicated and Inferred resources no matter how closely spaced the drillholes are, if coarse gold is present."</p> <p>The holes listed below are part of an ongoing program to retrieve historical records.</p>
BFDH1	DDH	1	195		Unknown		Unknown	Unvalidated Assays
BP1-8	RC	8	280		Unknown		Unknown	Unvalidated Assays
HRC1-18	RC	18	1281		Unknown		Unknown	Unvalidated Assays
R020	RC	1	100		Unknown		Unknown	Unvalidated Assays



## Appendix 1: MRP Sample Analysis Protocols

### BOORARA Assay Protocol 18

#### *Sample Preparation:*

**CRU-31** – Fine crushing of rock chip and drill sample to better than 70% -2mm. Standard preparation for samples where a representative split will be pulverized.

**SPL-21** – Split sample - riffle splitter (50:50 with the course reject retained).

**PUL-31** – Pulverise up to 1kg of split. QC Specification of 85% < 75 um.

**BAG-01** – Re-bagging of excess raw sample or pulp for storage.

#### *Analysis:*

#### **Au-AA26**

A prepared 50g sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

If Au result is greater than 5.0 ppm a duplicate lab sample is assayed.

### Au-AA15

Cyanide leach 24 hour bottle role accelerated using "LeachWell™" reagent with AAS finish (Range 0.01-300 ppm). If residue (tail - unleachable gold) then filter, press, dry, homogenise and assay method Au-AA26T Fire Assay Fusion with AAS determination, 50g sample.

### GEO-4ACID

Four acid "near total" digestion for geochemical samples, 0.25g sample.

### ME-ICP61

51 trace elements by HF-HNO<sub>3</sub>-HClO<sub>4</sub> acid digestion, HCl leach and ICP-AES, 0.25g samples.

### BOORARA Assay Protocol 22

#### *Sample Preparation:*

**CRU-31** – Fine crushing of rock chip and drill sample to better than 70% -2mm. Standard preparation for samples where a representative split will be pulverised.

**SPL-21** – Split sample - riffle splitter (50:50 with the course reject retained).

**PUL-31** – Pulverise up to 1kg of split. QC Specification of 85% < 75 um.

**BAG-01** – Re-bagging of excess raw sample or pulp for storage.

#### *Analysis:*

### Au-AA26

A prepared 50g sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

If Au result is greater than 5.0 ppm a duplicate lab sample is assayed.

### GEO-4ACID

Four acid "near total" digestion including HF for geochem samples, 0.25g sample.

### ME-ICP61

51 trace elements by HF-HNO<sub>3</sub>-HClO<sub>4</sub> acid digestion, HCl leach and ICP-AES, 0.25g samples.

## BOORARA Assay Protocol 23

### Sample Preparation:

**CRU-31** – Fine crushing of rock chip and drill sample to better than 70% -2mm. Standard preparation for samples where a representative split will be pulverized.

**SPL-21** – Split sample - riffle splitter (50:50 with the course reject retained).

**PUL-31** – Pulverise up to 1kg of split. QC Specification of 85% < 75 um.

**BAG-01** – Re-bagging of excess raw sample or pulp for storage.

### Analysis:

#### Au-AA26

A prepared 50g sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

If Au result is greater than 5.0 ppm a duplicate laboratory sample is assayed.

### BOORARA Protocol 28

#### Sample Preparation:

**CRU-31** – Fine crushing of rock chip and drill sample to better than 70% -2mm. Standard preparation for samples where a representative split will be pulverized.

**SPL-21** – Split sample - rotary splitter (50:50 with the course reject retained).

**PUL-31** – Pulverise up to 1kg of split. QC Specification of 85% < 75 um.

**BAG-01** – Re-bagging of excess raw sample or pulp for storage.

### Analysis:

#### Au-AA26



## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 05  
Date: 2015-02-20  
Owner: Geology Manager

A prepared 50g sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 10 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

If Au result is greater than 5.0 ppm a duplicate laboratory sample is assayed.

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
Revision: 5  
Date: 2015-02-20  
Owner: Geology Manager

### 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	1. <i>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.</i>	<p>The Boorara Project is located approximately 17km east of Kalgoorlie, 2km west of Nimbus and 6km north-northwest of Golden Ridge' The Boorara project is situated within mining leases M26/29, M26/277 and M26/318 accessed from the Kalgoorlie-Bulong Road via an unsealed haul road. The tenements are located within the Hampton Hill Pastoral Station.</p> <p>Situated within the Boorara Project area are the reserves associated with the Boorara townsite. Proposed open pit operations will not impact on the reserves.</p> <p>The location of waste dumps will be sited so as to avoid mineral resources, exploration targets and to work with other mining infrastructure associated with the Nimbus operations located within 2km of the proposed Boorara open pits.</p> <p>MRP purchased the Nimbus property on 8<sup>th</sup> September 2011 from Kalgoorlie Ore Treatment Company Pty Ltd (KOTC). The tenements are held by KOTC, a wholly owned subsidiary of MacPhersons Resources Ltd.</p>
	2. <i>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.</i>	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	3. <i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Historic gold production at Boorara produced 30,673 ozs from the treatment of 54,731 tonnes of ore. This production was from underground mining at the Cataract shaft, East lode shaft and the Crown Jewel shaft. Historic mine plans and sections show two orientations of mine stopes, one at 040°/25° NW and another at 315°/65°W.</p> <p>Dampier Mining Pty Ltd and Texas Gulf Australia Ltd in 1980 drilled 20 RC holes for 1038m and 10 diamond holes for 1695m.</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		<p>Western Reefs NL in 1985 undertook soil sampling on a 40m x 20m grid. They also completed 180 RAB holes for 9892m, 268 RC holes for 20,831m and 26 diamond holes for 2609m. Geological mapping was undertaken by Western Reefs including costean mapping and sampling. The Cataract shaft was refurbished and geologically mapped and surveyed. The Crown Jewel shaft was mapped and surveyed also.</p> <p>Windsor Resources in 1988 drilled 174 RC holes for 11274m.</p> <p>Newmont in 1990 drilled 338 RAB holes for 15446m, 39 RC holes for 4319m and 4 diamond holes for 718m. Geological mapping and soil sampling was also undertaken.</p> <p>Mt Monger Gold Project in 1993 drilled 116 RC holes for 6222m.</p> <p>Fimiston Mining NL in 1995 drilled 110 RC holes for 7257m and 1 diamond hole for 195m. The data relating to the Boorara gold deposits comprising the Southern Stockwork Zone, Northern Stockwork Zone, Cataract Area, East Lode and Digger Dam was reviewed. The database was updated to incorporate the drilling completed by Fimiston and cross sections and interpretations made. A global polygonal based resource estimate was made which estimated resources of 2.25 million tonnes @ 1.40g/t Au at a cut-off grade of 0.5g/t or 1.42 million tonnes @ 1.72 g/t Au at a cut off of 1.0 g/t to be estimated. Block modelling of this polygonal data was then completed which returned a total oxide resource of 1,293,000 tonnes @ 1.49 g/t, and a total fresh resource of 1,095,000 tonnes @ 1.86g/t.</p> <p>New Hampton Goldfields Ltd in 2001 undertook a resource estimate at Boorara which resulted in a JORC compliant undiluted mineral resource of 1,506,000t @ 1.85 g/t Au. Open pit design of the Southern Stockwork, Cataract and the Northern Stockwork resulted in a Probable Reserve of 179,000t @ 3.0 g/t Au. The New Hampton Goldfields Ltd – Jubilee Gold Operations report, “Mineral Resource Estimate Report, Boorara M26/29 M26/318 and M26/161, June 2001 G Job” outlines the methodology and an explanation of the resource calculation.</p> <p>Polymetals (WA) Pty Ltd in 2006 estimated a Non-JORC compliant total grade tonnage summary of 1,904,800t @1.38g/t Au using a cutoff grade of 0.5 g/t Au.</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

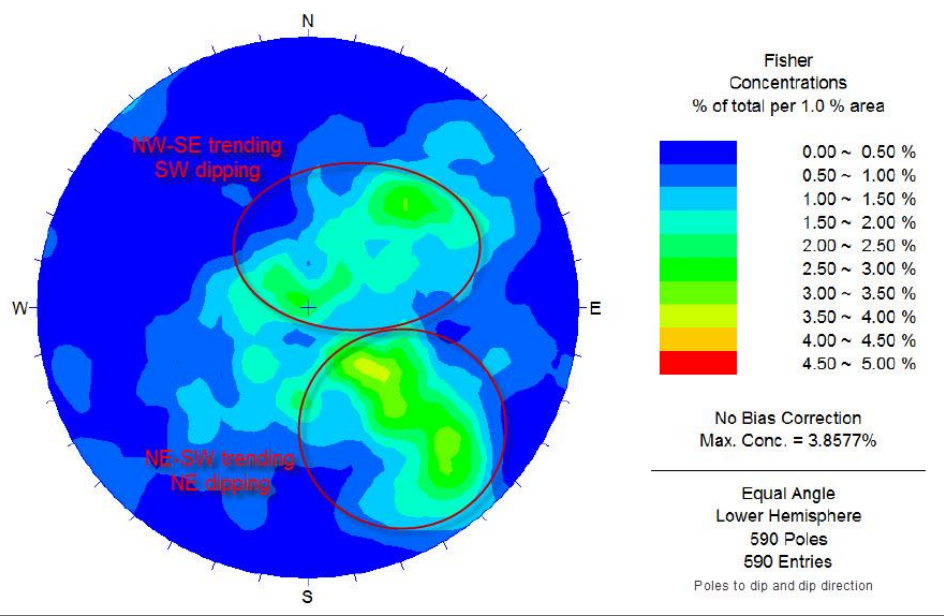
CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		<p>Polymetals (WA) Pty Ltd in 2009 completed 18 RC holes for 1770m. From this program 126 samples with &gt;1.0g/t Au were screen fire assayed, with another 34 duplicates taking the total samples assayed via screen fire assay to 160.</p> <p>CSA Global Pty Ltd on behalf of MRP in 2012 conducted a resource review of the Polymetals' 2006 resource which resulted in a revised non-classified grade tonnage distribution of 2,338,400t @ 1.3 g/t Au.</p> <p>In review CSA had used the historical shapes based on earlier interpretations and commented that the stockwork style of mineralisation required review to examine larger volumes of mineralisation that encompassed the entire mineralised domain. This formed a focus of the initial internal MRP review led to the significant reassessment of considering the entire dolerite host rock as the mineralised shape – the outcome was the MRP release of the August 2013 JORC MRE of 7.37Mt @ 1.09g/t Au for 260,000 ounces of gold.</p>
Geology	4. <i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Boorara Au deposit is considered to be an Archaean mesothermal Au deposit.</p> <p>The Boorara local geology consists of a sequence of ultramafic, mafic and felsic volcanic and volcanoclastic rocks, with interflow carbonaceous sediments found on the lithological boundaries. Dolerite intrusions are conformable within the sequence. The metamorphic grade of rocks at Boorara is lower greenschist facies. The alteration assemblage associated with better Au grades consists of quartz carbonate and sericite. Pyrite and arsenopyrite are associated with the better Au grades at Boorara.</p> <p>At Boorara gold mineralisation has been described by Verbeek (1987) to occur :</p> <ul style="list-style-type: none"> <li>• Near dolerite contacts associated with quartz stockwork or vein arrays. Pervasive carbonate-sericite alteration is present.</li> <li>• Sulphides occur in the vein selvage with proximal arsenopyrite and distal pyrite.</li> </ul>



## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		<ul style="list-style-type: none"> <li>• Veins are usually less than 20 mm wide whilst the selvage may be 1 to 4 times the width of the vein.</li> <li>• Associated with quartz veins in shallow (35 to 45 degrees) north-dipping shear zones.</li> <li>• Associated with steep (50 to 70 degrees) west-dipping shear zones on dolerite contacts.</li> </ul> <p>Mineralisation envelopes at Boorara consist of three dominant orientations:</p> <ol style="list-style-type: none"> <li>1. NW trend of sub-vertical mineralisation which is typified by the East Lode workings, and interpreted SSW mineralisation, and interpreted as sub parallel to lithology contacts</li> <li>2. NW moderate NE dipping structure at Crown Jewel, sub parallel to lithology contacts</li> <li>3. NE striking, shallow to moderate NW dipping structures typified by Cataract workings. This orientation is interpreted to gradually change to a north strike, moderate West dip as the series progresses to the northern extent of the modelled area.</li> </ol> <p>From analysis of vein orientations recorded in the structural logging of the MRP 2013 drilling (Grodzicki, 2013), mineralisation within the SSW and NSW is interpreted as moderate to steeply NW dipping vein sets constrained within the dolerite host rock. This results in mineralised veining striking perpendicular to an overall shape of NW striking, steeply dipping mineralised envelopes. The stereonet of veining is presented in Figure 1.</p>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		 <p><b>Figure 1.</b> Equal area southern hemisphere stereoplots of contoured poles to quartz veins for all vein data collected. Two dominant trends are present; NW-SE trending SW dipping veins and NE-SW NW dipping veins.</p> <p>It is possible that some the modelled mineralisation in the NE strike (Cataract orientation) extends from the NSW through the Diggers Dam prospects to the East, but drill coverage is insufficient to model effectively. This may significantly increase tonnage (though likely at low grade in unfavourable lithology host).</p>

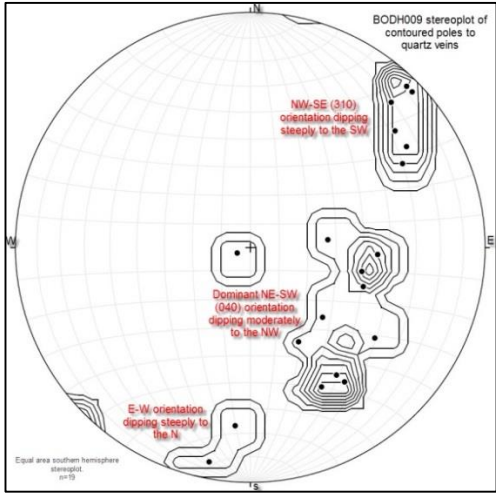
## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drill hole Information	<p>5. 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:</p> <ol style="list-style-type: none"> <li>1. easting and northing of the drill hole collar</li> <li>2. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>3. dip and azimuth of the hole</li> <li>4. down hole length and interception depth</li> <li>5. hole length.</li> </ol> <p>6. 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.</p>	<p>Drilling includes historical drill hole data and recent (2013-14) MRP data.</p> <p>The historical database consists of 777 RC holes (57,014m) and 48 diamond core holes (6,655.98m).</p> <p>MRP drilling consists of 22 diamond drill holes (2385.52m) and 117 RC holes (10,237m).</p> <p>All historical RC and diamond core drill hole data were considered to have reliable quality assurance to be included in the current MRE. Rotary Air Blast (RAB), and aircore holes were not used in the MRE due to quality assurance concerns, but were used to guide the geological interpretation of the mineralisation.</p>
Data aggregation methods	<p>7. In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>8. 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.</p>	<p>High grade Au intervals internal to broader zones of gold mineralisation are reported as included intervals.</p> <p>MRP ASX release 19/06/13 reported Boorara diamond drilling results;</p> <p>BODH014 5.1m @ 3.69g/t Au from 79.05m        -incl 1m @13.2 g/t Au</p> <p>BODH014 6.1m @ 2.39g/t Au from 67.9m        -incl 1.15m @ 7.53g/t Au</p> <p>BODH010 5.85m @ 2.38g/t Au from 1.6m</p>

# JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

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	<p>9. <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>-incl 1m @ 9.21 g/t Au            BODH011 68.7m @ 0.97g/t Au from 37.8m            Incl 1.05m @ 3.53 g/t Au (47.3-48.35m from table)            Incl 1.05m @ 3.22 g/t Au (94.0-95.05m from table)</p> <p>No top cutting of grades was used for the reporting of drill intersections. A lower cut of 0.3 g/t Au is used as the basis for intersection reporting and a maximum of two consecutive metres of internal dilution can be included.</p>
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<p>10. <i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p>11. <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p>	<p>MRP diamond drill holes were orientated either 060°/-60°/-55°, 130°/-60°/-55° or 090°/-55°. These holes targeted two orientations of gold mineralisation, the 040°/25°NW quartz vein sets seen at Cataract Cross Lode and throughout Boorara and the 315°- 320° sub-vertical shear zone hosted mineralisation. Structural measurements of quartz veins taken from diamond core confirmed these two orientations. These orientations were selected to provide the closest possible result to a true width intercept to mineralisation in that particular location.</p> 

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

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	<p>12. <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p>	<p>Historical drill azimuths vary from 060°, 150°, 240° and 270° degrees.</p> <p>MRP diamond drill holes were drilled to be as normal as possible to the two main mineralised orientations. Some MRP drill holes are drilling down dip of the dolerite hosted Au mineralised body but they were designed to test pit wall designs and intersect the dominant quartz vein orientation at a normal angle in that location. The dominant orientation of vein sets varies between the western and eastern contact areas and also between the Southern and Northern Stockworks.</p> <p>In consideration that all modelling is done in 3D-mine software, the true orientation of the mineralisation and interpretations were well understood and reported accordingly.</p>
Diagrams	<p>13. <i>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.</i></p> <p><i>(NOTE: Any map, section, diagram, or other graphic or photo must be of high enough resolution to clearly be viewed, copied and read without distortion or loss of focus).</i></p>	<p>Exploration results were not reported as part of this document, but are presented in other ASX news releases.</p> <p>Ample maps, sections and diagrams are included to ensure clear communication of locations and distribution of drill holes and their relation to the mineralisation.</p>
Balanced reporting	<p>14. <i>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.</i></p>	<p>Exploration results were not reported as part of this document, but are presented in other ASX news releases.</p>



## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

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<p><i>Other substantive exploration data</i></p>	<p>15. <i>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.</i></p>	<p>Geological Observations:</p> <p>Weathering profiles at Boorara change from a topographic high at the northern end around the Cataract prospect, with a topographic low at SSW. Depth to bottom of complete oxidation (BOCO) is logged to grade from less than 10m to 20m below surface to between 40m to 50m below surface at SSW. Top of fresh rock (TOFR) is logged by geological logging to be from 30m below surface at NSW to over 60m below surface at SSW. The weathering displays classical Eastern Goldfields degradation of mafic minerals to clays with textural and mineral destruction, and iron oxides of hematite etc. Regolith is dominantly of residual and thin colluvium at the northern end, with depositional transported cover to 2m at the southern end of SSW.</p> <p>Geophysical survey results:        A reinterpretation of historical magnetic survey data has been undertaken, this can be found in MRP report: “20130608 Nimbus Boorara Mag Interp JC”.        A gravity survey was undertaken in 2013 over the Boorara area and the report summarising these results is: “20130521 Nimbus Area Gravity Interp JC”.</p> <p>Geochemical Survey Results:        Auger soil geochemistry undertaken over Boorara has resulted in a coherent 200 ppb Au anomaly that extends the length of the Boorara resource.</p> <p>Bulk Density:        Bulk density measurements were undertaken on diamond core from the 2013 MRP diamond drilling campaign and some of the 2014 diamond core. The MRP procedure on collecting of density data from core samples is: “20130709 Boorara diamond BD procedure report GC”</p>
<p><i>Further work</i></p>	<p>16. <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p>	<p>Auger Au geochemistry anomalies are continuous along strike to the north. The Brindabella, Dawn and Chappell Au prospects are exploration targets for future work.</p>

## JORC Code, 2012 Edition – Table 1 Report Template

Ref:  
 Revision: 5  
 Date: 2015-02-20  
 Owner: Geology Manager

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	<p><i>17. Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.            (NOTE: Any map, section, diagram, or other graphic or photo must be of high enough resolution to clearly be viewed, copied and read without distortion or loss of focus).</i></p>	<p>A potential parallel line of Au mineralisation to Boorara has been identified to the west. The magnetic image of this area is favourable and confirmation of the exploration potential of this area.</p> <p>Mineralisation in the resource areas is still open in some places and some higher grade zones possibly need to be followed up by drill testing.</p> <hr/> <p>Diagrams relating to exploration results were presented in ASX announcements 12/5/2014, 26/6/2013 and 19/6/2013</p>

# JORC Code, 2012 Edition – Table 1 report

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>MRP and pre-MRP data has been checked and validated to an acceptable standard, by MacPherson's staff and by independent geological consultancy group CSA Global.</li> <li>Validation methods would include review of drill logs and other hardcopy data and a review in 3D graphics to highlight any obvious errors.</li> <li>Randomly selected data files from the database (collars and assays) were cross checked against the original laboratory or survey certificates.</li> <li>Database scripts were run to check for missing data, abrupt down hole azimuth changes, sample depths greater than recorded hole depth, overlapping intervals.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person visited the Boorara site in 2012, observing the general layout, topographic expression of the deposit and some historical diamond core. No exploration drilling activities or other geological activities were being undertaken at the time. The Competent Person also visited the adjacent Nimbus Project where MacPhersons were drilling, and the Competent Person observed the drilling, sampling and geological activities and procedures at that site, which were the same as used during the 2014 drilling programme at Boorara.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>A lot of work has been completed on building a 3D geological model of the Boorara Gold Project, starting with a review of the geological interpretations supporting historical Mineral Resource estimates, followed by a detailed re-evaluation of the diamond drill core, RC chips and geological mapping. A geotechnical drilling program in 2014 provided some structural data to help build the model and all lithology data was taken from drill hole logging with some interpretation extended by interpretation from aeromagnetic data.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>There is a high degree of confidence in the geological data, as conveyed in the Measured resource category.</p> <ul style="list-style-type: none"> <li>• Drill hole intercept logging and assay results, and structural interpretations from drill core have formed the basis for the geological interpretation.</li> <li>• Historical Mineral Resource estimates used alternative interpretations, from which the current Mineral Resource has developed, resulting in a material increase in Mineral Resource tonnage and an increase in confidence, as reflected in the JORC Mineral Resource categories.</li> <li>• The mineralisation is mostly hosted within the Boorara dolerite, although some interpreted internal sediments and western ultramafic do contain mineralisation around the dolerite contact zones.</li> <li>• The Au mineralisation exhibits a relatively high nugget affect, however continuity of mineralisation is clearly seen from results of historical close spaced drilling, and the recent twinned drilling programme. The local stratigraphy ranges from ultramafics to the west, dolerite (hosting the majority of mineralisation) and sediments to the east, and has a strike of over 1,900 m in the project area.</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The main part of the resource extends for a strike length of nearly 1,900 m and includes a 200 m interval from the natural surface down to the 200 mRL, being the limit of drilling depth. It varies in width from 2-5m for some lodes up to 10-20m wide for the main lodes</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>• <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage)</i></li> </ul>	<ul style="list-style-type: none"> <li>• The mineralisation and geological domains and weathering surfaces were constructed in Surpac. Datamine Studio 3 software was used for block modelling, grade interpolation, MRE classification and reporting. GeoAccess Professional and Snowden Supervisor were used for geostatistical analyses of data. The Au domain interpretations were based upon a lower cut-off of 0.3 g/t Au, a typical model cut-off grade employed in the Eastern Goldfields. The Mineral Resource model consists of 97 zones of Au mineralisation, with 45 domains in the Northern Stockwork West (NSWW), 18 in the Northern Stockwork East (NSWE), 29 in the Southern Stockworks (SSW), and 5 in the flat lying 'surface' domains. Three weathering domains (oxide, transitional and fresh) were interpreted. Mineralisation domains were</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>characterisation).</i></p> <ul style="list-style-type: none"> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li>   <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li>   <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li>   <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>encapsulated by means of 3D wireframed envelopes. Domains were extrapolated along strike or down plunge to half a section spacing or if a barren hole cut the plunge extension before this limit. The more strike and dip extensive domains were extrapolated to the 0 mRL, although no Mineral Resources were reported from the deeper volumes.</p> <ul style="list-style-type: none"> <li>• Top cuts were used to constrain extreme grade values if it was determined that the extreme high grades would potentially over-estimate local block estimates, either due to limited sample numbers, or if the individual assay result was considered too high compared to the rest of the domain's population. Top cuts vary according to the host mineralisation domain. All samples were composited to 1m intervals, with the exception of the 'surface' domains, which were composited to 2 m intervals, based upon a review of sample length distribution. All diamond core and RC drill hole data were utilised in the grade interpolation; samples from RAB and other drill hole types were excluded. A Quality Assurance study of the historical drilling coupled with a due diligence twin drilling programme confirmed the historical drill hole database could be used as part of the grade interpolation.</li> <li>• A block model with parent cell sizes 4 m x 20 m x 5 m (Easting, Northing, RI) was constructed, compared to typical drill spacing of 10 m x 10 m within the volume classified as Measured. The majority of the Mineral Resource within the Oxide weathering domains was drilled on a 20 m by 20 m pattern, with sample spacing getting considerable wider with increasing depth.</li> <li>• A statistical analysis of the Au population by mineralisation area (NSWW, NSWE, SSW and Surface), and by mineralisation domain, weathering domain, hole type, and a combination of these, was conducted on both the non-composited and composited drill data. Top cuts were determined from an analysis of the non-composited data. A variogram study was carried out on selected domains with the greatest data population. Log variograms were modelled, and the back transformed parameters fed into the grade interpolation algorithm. The variogram studies showed the Boorara mineralisation has a relatively high nugget effect, implying that a large sample population would be required to interpolate a single block. A shallow to moderate northerly plunge was also modelled in the stockwork</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>domains.</p> <ul style="list-style-type: none"> <li>• Grade estimation was by Ordinary Kriging (OK) with Inverse Distance Squared (IDS) estimation concurrently run as a check estimate. A minimum of 8 and maximum of 24 composited (1m) samples were used in any one block estimate for Au for NSWW, NSWE and SSW mineralisation zones, with 8 to 24 samples (2 m composite lengths) used for the Au grade interpolation in the surface zones . A maximum of 4 composited samples per drill hole were used in any one block estimate. Grade interpolation was run within the individual mineralisation domains, acting as hard boundaries. The base of complete oxidation (BOCO) weathering profile was also used to split the grade interpolation by weathering zone.</li> <li>• Bulk density values were assigned according to rock type (ultramafic, dolerite or sediment), and the weathering profile (oxide, transition and fresh).</li> <li>• The current Mineral Resource was checked against the previously reported Mineral Resource (August 2013) and found to be of similar tonnage and grade.</li> <li>• The Mineral Resource was depleted by the volume of the shallow open pits present in the area, which were incorporated into the topographic DTM. Wireframe solids representing underground excavations (shafts, drives and stopes) from the early to mid-20th Century were built into the model, and the reported Mineral Resource has excluded the volumes within the underground voids. These volumes are minor.</li> <li>• No by products were modelled.</li> <li>• No selective mining units were assumed in this model.</li> <li>• The grade model was validated by 1) creating slices of the model and comparing to drill holes on the same slice; 2) swath plots comparing average block grades with average sample grades on nominated easting, northing and RL slices; and 3) mean grades per domain for estimated blocks and flagged drill hole samples. No reconciliation data exists to test the model.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Tonnages are estimated on a dry basis.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The reporting lower cut-off grade is based on what the likely mining cut-off grade is going to be for open pit heap leach processing.</li> </ul>

Criteria	JORC Code explanation	Commentary
		Recent metallurgical test work is suggesting low grade ore would be sent to heap leach; therefore a Mineral Resource reported above 0.3 g/t is considered reasonable by the CP, and in line with the metallurgical test work.
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No mining assumptions have been made other than the expected lower cut-off grade mentioned above.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical test work has demonstrated the Mineral Resource located within the weathering domains (Oxide and Transitional) are amenable to heap leach processing.</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The Boorara project is located in a mature gold mining district within 15 km of Kalgoorlie-Boulder. Mining and prospecting activity has occurred at staggered intervals over the past 100 years. There are no major water courses in the project area, although ephemeral streams do cut across the project. There are no known endangered flora or fauna populations. Situated within the Boorara Project area are the reserves associated with the Boorara townsite. Proposed open pit operations will not impact upon the townsite reserves.</li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>Bulk densities are assumed but based on limited testwork completed on MRP diamond core samples. Density is assumed to remain constant over the extent of the resource domains and weathering profiles. Densities used are in-line with values used throughout the industry for similar rock types and for estimations completed on Boorara in the past. The CP is confident the densities assigned to the</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<p>block model are appropriate for the rock type and associated intensity of weathering.</p> <ul style="list-style-type: none"> <li>The samples selected for density work are described geologically with some estimations of porosity and moisture made. Sub domaining on alteration zones has not been undertaken and so the densities selected are regarded as suitable for a global estimation based on host rock type and weathering type only. More density work may be undertaken if possible to determine the effects of alteration types.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>Classification of the Mineral Resource estimate was carried out taking into account the geological understanding of the deposit, QAQC of the samples, density data and drill hole spacing.</li> <li>The Mineral Resource is classified as a combination of Measured, Indicated and Inferred, with geological evidence sufficient to confirm geological and grade continuity for the Measured Mineral Resource.</li> <li>All available data was assessed and the competent persons' relative confidence in the data was used to assist in the classification of the Mineral Resource.</li> <li>The current classification assignment appropriately reflects the Competent Person's view of the deposit.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>No audits have been undertaken on the current Mineral Resource. The Mineral Resource was reviewed internally by MacPhersons and CSA Global.</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should</i></li> </ul>	<ul style="list-style-type: none"> <li>An inverse distance estimation algorithm was used in parallel with the ordinary Kriged interpolation, with results very similar to the Kriged results.</li> <li>No other estimation method or geostatistical analysis has been performed.</li> <li>The Mineral Resource is a global estimate, whereby the global Mineral Resource is reported, with the tonnages and grade above the reporting cut-off grade appropriately reported.</li> <li>Relevant tonnages and grade above a nominated cut-off grade for</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>include assumptions made and the procedures used.</i></p> <ul style="list-style-type: none"> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>Au are provided in the introduction and body of this report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages. The contained ounces for each block were calculated by multiplying the Au grade (g/t) by the block tonnage.</p> <ul style="list-style-type: none"> <li>• No production data is available to reconcile results with.</li> </ul>