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ASX Announcement

29 July 2016

#### **ASX Code: MRP**

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# **Boorara Trial Open Pit Gold Mining**

- ❖ Trial open pit mining is planned to commence at the Boorara Gold Deposit in September 2016. This will enable MacPhersons to better understand the resource model and metallurgical aspects of the orebody. If results are as expected then MacPhersons will consider the transition to full scale open pit mining and treatment via carbon in pulp (CIP).
- ❖ The Trial Open Pit up to 20 metres depth is planned to extract 20,000 tonnes of ore grading 1.8 g/t gold and up to 10,000 tonnes of low grade ore grading 0.6g/t Au producing up to 1,200 ounces of gold.
- Shallow depth vertical (<23 m) close spaced (4 m x 4 m) Reverse Circulation (RC) Grade control drilling over the trial pit area reported the following grades including:
  - 16 metres @ 2.77 g/t from 2 metres (BGC10060)
  - 17 metres @ 2.05 g/t from surface (BGC10073)
  - 20 metres @ 1.89 g/t from surface (BGC10089)
- Initial observations indicate that the grade control drilling has resulted in an increase in the overall grade of the grade control model compared to the existing resource block model.
- Preliminary CIP metallurgical testwork on the Boorara gold deposit has indicated gold recoveries of 93% are achievable.
- The Boorara trial pit project management plan (PMP) was lodged with the WA Department of Mines and Petroleum (DMP) on the 8<sup>th</sup> of July 2016 approval is expected in late August 2016.
- A toll milling agreement has been executed with FMR Investments Pty Ltd to mill up to a 30,000 tonne trial parcel of ore through their Coolgardie Greenfields Mill.

### **Boorara Trial Open Mining**

MacPhersons Resources (ASX: MRP) is pleased to advise that it is planning to commence trial mining at the Boorara gold deposit, subject final DMP approval. The aim of the Boorara trial mining operation is to enable accurate resource, mining and milling reconciliations to be undertaken on the deposit that is part of the current feasibility study. A successful trial mining operation will give the MRP board confidence to advance the Boorara gold deposit into full scale production.

Reverse circulation grade control drilling has been completed on close spaced 4 m x 4 m pattern over the majority of proposed trail pit design, the remainder of the grade control drilling is expected to be completed by the end of July.

Based on drilling to date MRP is confident that approximately 20,000 tonnes of ore grading 1.8 g/t gold (diluted tonnes and grade) and up to 10,000 tonnes of low grade ore grading 0.6 g/t gold (diluted tonnes and grade) will be extracted from within the trial pit design producing up to 1,200 ounces of gold (based on 93% recovery).

Metallurgical testwork on the trial pit grade control samples has indicated a recovery of 97.7%.

The PMP was submitted to the DMP in early July 2016 and approval is expected to take 6 weeks. The PMP contains details on the mining method, trucking route, waste dump and office location. It also outlines the required MRP safety management system. The PMP is the final regulatory approval required before commencement of mining. A small team of experienced open pit mining professionals have been engaged to undertake the trial mining activities; these staff are well known to MRP. Kalgoorlie based mining contractor MLG Oz Pty Ltd has been engaged to undertake the trial mining using a mining fleet consisting of a 90 tonne excavator, 3 x 40 tonne articulated trucks, bulldozer, grader and water cart.

Mining of the trial open pit is expected to take four weeks to complete and the ore will transported to the FMR Investments Pty Ltd Greenfields CIP toll treatment milling facility. The processing of the higher grade ore will take one week; the approximately 10,000 tonne of low grade ore will also be processed to make a batch of approximately 30,000 tonnes.

The trial pit is located within the planned Southern Stockwork heap leach pit design at Boorara. This pit is centred on the dolerite host rock with the gold ore zone outcropping at surface. The interpreted ore envelope consists of close spaced dolerite hosted quartz veinlets and veining. The dominant vein geometry strikes 040° and dips 30° to the northwest.

The proposed Boorara heap leach open pit designs contain a Measured Resource and Indicated Resource to 75 m vertical depth of 3.0-3.5 million tonne grading 1.01 g/t gold producing circa 86,000-91,000 ounces of gold over three years from a standalone heap leach.

#### **Boorara Ore reserve**

Category	Tonnes	Grade Au g/t	Ounces Au
Proved	3,506,214	1.02	115,008
Probable	842,761	0.87	23,503
Total	4,348,975	0.99	138,508

Refer ASX Announcement 29 June 2015. : Ore reserve oxide marginal cut-off at 90% met recovery is 0.374g/t Au. Transitional marginal cut-off at 70% net recovery is 0.457g/t Au. Fresh marginal cut-off at 55% recovery is 0.582g/t Au. Differences in totals occur due to rounding.



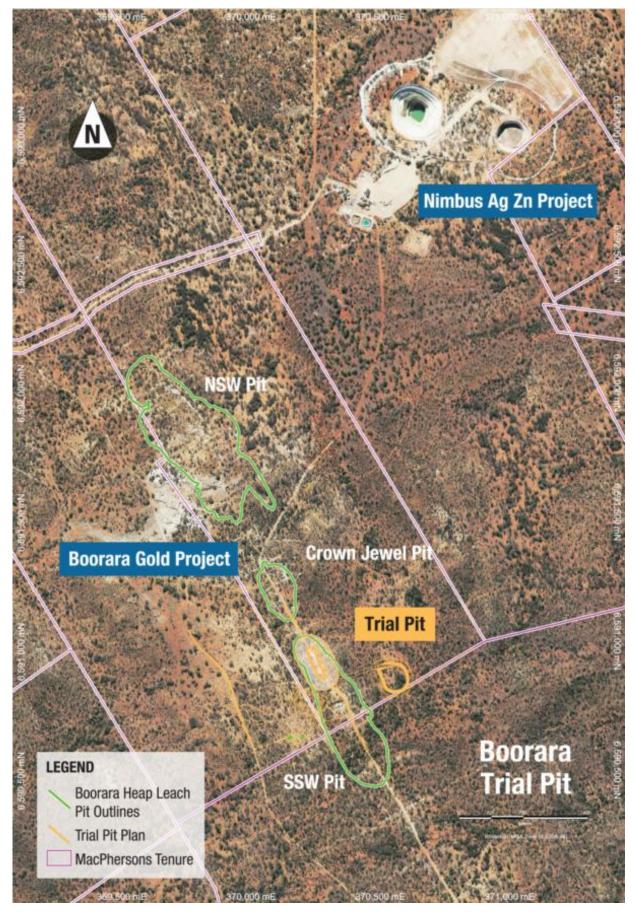


Figure 1: Boorara Trial Pit Location in Relation to Proposed Heap Leach Pit Design Outlines.

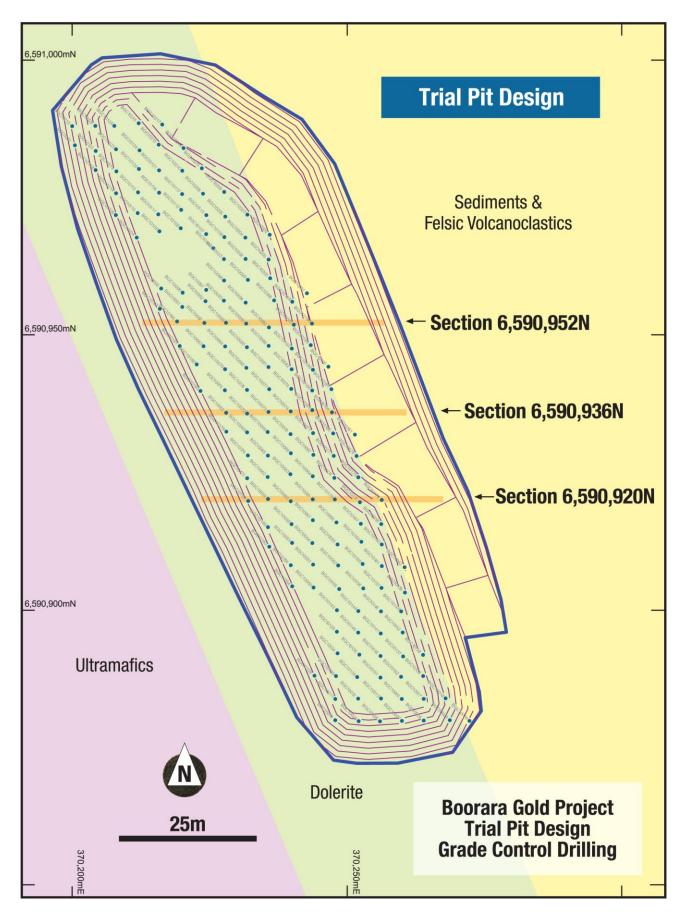
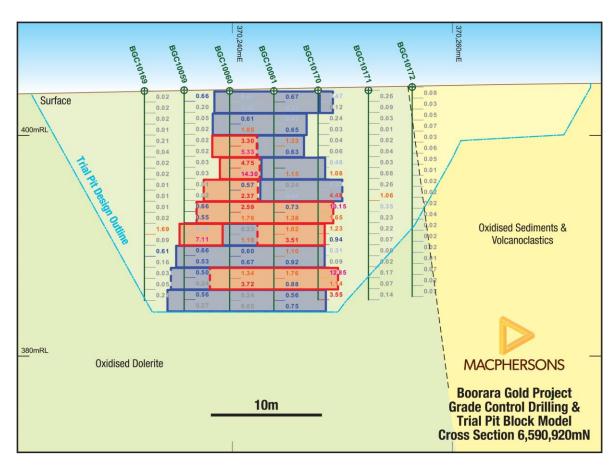


Figure 2: Boorara Trial Pit RC Grade Control Plan.



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Figure 3: Boorara Trial Pit RC Grade Control Cross Section 6590920N.

Oxidised Dolerite

10m

380mRL

**Boorara Gold Project** 

Grade Control Drilling & Trial Pit Block Model

Cross Section 6,590,936mN

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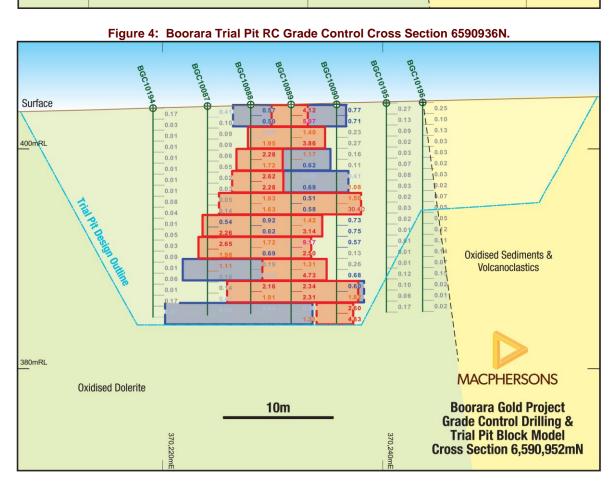


Figure 5: Boorara Trial Pit RC Grade Control Cross Section 6590968N

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Figure 6: RC Grade Control Drilling at the Proposed Boorara Trial Pit Location.

#### **About MacPhersons**

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

The company's long term objective is the development of its existing assets and unlocking the full potential of its 100% owned highly prospective Boorara/Nimbus and Coolgardie projects.

For more information on MacPhersons Resources Limited and to subscribe for regular updates, please visit our website at: <a href="www.mrpresources.com.au">www.mrpresources.com.au</a> or contact our Kalgoorlie office on <a href="mailto:info@mrpresources.com.au">info@mrpresources.com.au</a> or - 08 9068 1300.

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Figure 7: Location of the Boorara-Nimbus Projects area, 10 km east of the Kalgoorlie Super Pit, Showing the Nimbus Mill Site and the Boorara Gold Project with 1km of Nimbus.

### **Competent Person's Statement**

The information is this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Andrew Pumphrey who is a Member of the Australian Institute of Geoscientists and is a Member of the Australasian Institute of Mining and Metallurgy. Andrew Pumphrey is a full time employee 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 Pumphrey 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.



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

## **Section 1 Sampling Techniques and Data**

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

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sampling techniques	1. 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.	The Boorara Southern Stockworks Trial Pit target was recently drilled out on a 4m by 4m collar pattern with 185 reverse Circulation (RC) drill holes completed for 3,563m. This density of drilling and sampling is to define mineralisation for an expected trial pit to be completed in the near future by MRP.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	RC samples were collected every metre through a cone splitter mounted on the drill rig. At each metre the driller pulled back off the bottom of hole to allow that metre of sample to pass up to the cyclone. Sample recoveries were estimated by the rig geologist. Appropriate QAQC protocols were followed, including the insertion of commercial certified reference materials and MRP blanks.
		For one metre of drilling, at 100% sample recovery about 23kg of oxide material should be returned which ¾ fills a green plastic bag. From this approximate guideline, geologists are able to make a reasonable estimate (within 10%) of sample return recoveries. No weighing of the bulk samples are made but the laboratory samples are routinely weighed.
	3. Aspects of the determination of mineralisation that are Material to the Public Report.	The Boorara deposit has been well drilled over the years and MRP geologists have a reasonable understanding on what material is likely to return mineralised results.  For Boorara mineralisation is generally hosted in quartz veined altered dolerite with a sulphide assemblage of pyrite ± arsenopyrite. Some oxidised pyrites can be recognised in the oxide material, particularly on vein margins.
	4. 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.	Up to 3kg of RC chips were pulverized to 85% passing 75 microns. Assaying method is by 50g Fire Assay with analysis by Atomic Absorption Spectroscopy (AAS).

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CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drilling techniques	5. 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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	This drilling was all RC method with a drill hole diameter of 121mm
Drill sample recovery	6. Method of recording and assessing core and chip sample recoveries and results assessed.  7. **The content of the content o	
	7. Measures taken to maximise sample recovery and ensure representative nature of the samples.	Having an experienced RC driller on the rig was very important. There was a noticeable consistency in sample sizes. Steady drilling with reliable drill equipment is also essential. Cleaning of cyclone and splitter at frequent intervals, especially in oxide material is important.
	8. 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.	Sample Recovery from mineralised zone is generally high (>70%) from this drilling  No significant bias is apparent between grade and sample recovery although further in depth studies would be required to determine if any bias does exist.
Logging	9. 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.	RC drill chips underwent detailed logging through the entire hole (at 1m intervals), with record kept of colour, lithology, degree of oxidation, veining etc. MRP RC chip trays have been stored at the project site for future reference.
	10. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	RC chip logging is both qualitative and quantitative in nature and included records of lithology, oxidation state, colour, mineralisation, alteration and veining observations.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	11.The total length and percentage of the relevant intersections logged.	All MRP drill holes were geologically logged in full (100%).
Sub- sampling techniques and sample preparation	12.If core, whether cut or sawn and whether quarter, half or all core taken.	
	13.If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All sub samples were split with the rig mounted cone splitter system. No wet samples were encountered.
	14. For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation provided by the laboratory and the 50 gram fire assay is industry standard for gold samples  All sampling and assaying procedures undertaken by MRP are in line with industry standards and are deemed appropriate for providing the best possible sample for assaying and subsequent grade estimation
	15. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	MRP have blank samples and standards submitted for quality control. The laboratory provided sample duplicates from pulps. No field duplicates are taken.
	16. Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate for the style of mineralisation at Boorara, although there is some variability in the repeat assay results which appears to be attributable to mineralogical

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		heterogeneity which is the norm with this style of mineralisation.
Quality of assay data and laboratory tests	17.The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The nature, quality and appropriateness of the assaying and laboratory procedures are industry standard for Archaean mesothermal lode gold deposits. The fire assay technique will result in a total assay result.
	18. 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.	
	19. 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.	A total of 216 blanks and standards were used in the GC drilling program.
		One MRP blank failed with a result above 0.1 ppm gold. This is an acceptable failure rate given the nature of the material used.
		Nine different certified standards were used for QAQC purposes. Of the 108 standards submitted, seven failed the three standard deviation threshold. This is moderately above an expected failure rate of 5%. A discussion was held with the laboratory between the two phases of drilling and an improvement on performance was seen for the second phase of assaying.
Verification of sampling and assaying	20.The verification of significant intersections by either independent or alternative company personnel.	

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	21.Discuss any adjustment to assay data.	All data verified and validated by MRP geologists imported into Gemcom GEMS™ (GEMS) database, licensed to MRP and maintained by MRP (Kalgoorlie).
		Hard copy of all data stored at Head Office in Kalgoorlie
	22.Discuss any adjustment to assay data.	No adjustments are made to the primary assay data imported into the database.
Location of	23. Specification of the grid system used.	Final hole collar locations are surveyed by licenced
data points	23.Specification of the grid system used.	surveyor (Minecomp Pty Ltd) with DGPS (to 0.01m accuracy).
	24. Quality and adequacy of topographic control.	The grid system is the Geocentric Datum of Australia (GDA94) Zone 51
	25. Quality and adequacy of topographic control.	
Data spacing and distribution	26. 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 estimation procedure(s) and classifications applied.	This drilling was completed on a 4m by 4m collar spacing for grade control type sampling density

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	27.Whether sample compositing has been applied.	This level of data spacing will give a high level of confidence to the limits and tenor of mineralisation defined.
	28. Whether sample compositing has been applied.	Compositing was undertaken of historic RC samples via 3 metre composites and 4 metres composites. One metre samples were split using a riffle splitter.
Orientation of data in relation to geological structure	29. 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.	
	30. 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.	These drill holes are drilled vertically into a subvertical orebody and many of the holes end in mineralisation and therefore do not define the lower limits to the mineralisation. The holes are drilled for grade control purposes for a trial pit exercise expected to be undertaken by MRP in the near future.
		The assaying does show an increase statistically in grade value compared to the resource drilling for the same area. It remains to be seen once the trial pit and mine/mill reconciliation of grade is completed as to whether there is any bias between resource drilling samples and these grade control samples.
Sample security		Chain of custody is managed by MRP. Sample pulps and coarse rejects are stored at ALS Kalgoorlie. Whilst in storage, they are kept in a locked yard. The laboratory provides access to a web based tracking system to track the progress of batches of samples.

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## **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	31. Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Boorara Project is located approximately 17km east-southeast 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.
		Situated within the Boorara Project area are the reserves associated with the Boorara townsite. Proposed open pit operations will not impact on the reserves.
		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.
		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.
	32. 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.	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	33.Acknowledgment and appraisal of exploration by other parties.	Historic gold production at Boorara produced 30,673 oz's 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.
		Dampier Mining Pty Ltd and Texas Gulf Australia Ltd in 1980 drilled 20 RC holes for 1038m and 10 diamond holes for 1695m.
		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

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CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		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.
		Windsor Resources in 1988 drilled 174 RC holes for 11274m.
		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.
		Mt Monger Gold Project in 1993 drilled 116 RC holes for 6222m.
		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.
		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.
		Polymetals (WA) Pty Ltd in 2006 estimated a NON JORC complaint total resource summary of 1,904,800t @1.38g/t Au using a cutoff grade of 0.5 g/t Au.
		Polymetals (WA) Pty Ltd in 2009 completed 18 RC holes for 1770m. From this program 126 samples with

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		>1.0g/t Au were screen fire assayed, with another 34 duplicates taking the total samples assayed via screen fire assay to 160.
		CSA Global Pty Ltd on behalf of MRP in 2012 conducted a resource review of the Polymetals' 2006 resource which resulted in a revised resource of 2,338,400t @ 1.3 g/t Au.
		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 re-assessment 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.
Geology	34.Deposit type, geological setting and style of mineralisation.	The Boorara Au deposit is Archaean mesothermal Au deposit.
		The Boorara local geology consists of a sequence of ultramafic, mafic and felsic volcanic and volcaniclastic 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.
		At Boorara gold mineralisation has been described by Verbeek (1987) to occur :
		<ul> <li>Near dolerite contacts associated with quartz stockwork or vein arrays. Pervasive carbonate-sericite alteration is present.</li> <li>Sulphides occur in the vein selvedge with proximal arsenopyrite and distal pyrite.</li> <li>Veins are usually less than 20 mm wide whilst the selvedge may be 1 to 4 times the width of the vein.</li> <li>Associated with quartz veins in shallow (20 to 45 degrees) north-dipping shear zones.</li> <li>Associated with steep (50 to 70 degrees) east-dipping shear zones on dolerite contacts.</li> </ul>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Mineralisation envelopes at Boorara consist of three dominant orientations:  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  2. NW moderate NE dipping structure at Crown Jewel, sub parallel to lithology contacts  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
Drill hole Information	35.A summary of all information material to the understanding of the exploration results including a tabulation of the	series progresses to the northern extent of the modelled area.  A drill hole collar table is attached in Appendix 1
	following information for all Material drill holes:  1. easting and northing of the drill hole collar  2. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  3. dip and azimuth of the hole  4. down hole length and interception depth  5. hole length.	Drill holes missing from the hole number sequence were pre-numbered planned holes that were not drilled either due to low priority (based on geology) or due to rig access problems.
	36.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.	
Data aggregation methods	37.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.	A full set of significant intersections are included in the table in Appendix 2.  The intercepts reported are averages as all samples being 1m RC samples are considered to have the same sample support.  No top cutting of grades has been done prior to reporting of these intersections
	38. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such	

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CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	aggregation should be stated and some typical examples of such aggregations should be shown in detail.  39. The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	40. These relationships are particularly important in the reporting of Exploration Results.	These drill holes are vertical grade control drill holes into a sub vertical ore zone and so do not define the true width of the ore or its limits at depth.
	41. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The Southern Stockwork ore is generally steeply dipping to the east in a set of en-echelon lodes. Some higher grade mineralisation can be related to flatter, north plunging quartz ("ladder") vein sets
	42. 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').	The true width of the ore is known from the earlier deeper resource drilling, but is not completely defined by this shallow grade control drilling
Diagrams	43. 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.  (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).	Drill hole location plan is attached in Appendix 3.  A selection of drillhole cross sections are attached in Appendix 4.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Balanced reporting	44. 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.	
Other substantive exploration data	45. 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.	Geological Observations: All drill holes encountered weathered dolerite with varying degrees of quartz veining. Some holes on the eastern flank of the drill out were collared in the eastern sediments and crossed the geological contact into the dolerite. The sediments are generally very fine sandstone and siltstone.  No groundwater was encountered  No black shale was logged
Further work	46. The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  47. Diagrams clearly highlighting the areas	No further drilling work is envisaged prior to trial mining. The trial mining may provide further data that will be used for future drill planning and mineralisation targeting.  Diagrams of this nature are not applicable for the
	47.Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this	Diagrams of this nature are not applicable for the Trial Pit mining

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	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).	



# Appendix 1 Drill Hole Collars

HOLE-ID	GDA East	GDA North	mRL	Depth	Azimuth	Dip
BGC10050	370243.934	6590904.05	403.165	19	0	-90
BGC10051	370243.856	6590908.23	403.435	19	0	-90
BGC10052	370248.413	6590908.06	403.492	19	0	-90
BGC10053	370240.031	6590912.17	403.602	19	0	-90
BGC10054	370243.718	6590912.14	403.687	19	0	-90
BGC10055	370248.302	6590911.89	403.639	19	0	-90
BGC10056	370239.936	6590915.58	403.856	19	0	-90
BGC10057	370243.805	6590916.3	403.927	19	0	-90
BGC10058	370248.1	6590915.88	403.937	19	0	-90
BGC10059	370235.653	6590920.16	404.119	20	0	-90
BGC10060	370239.781	6590919.75	404.054	20	0	-90
BGC10061	370243.794	6590920.09	404.054	20	0	-90
BGC10062	370235.592	6590924.15	404.273	20	0	-90
BGC10063	370239.726	6590924.66	404.195	20	0	-90
BGC10064	370243.791	6590924.29	404.249	20	0	-90
BGC10065	370235.631	6590928.05	404.257	20	0	-90
BGC10066	370239.803	6590928.48	404.263	20	0	-90
BGC10067	370243.897	6590928.19	404.181	20	0	-90
BGC10068	370231.852	6590932.27	404.214	20	0	-90
BGC10069	370235.586	6590932.33	404.217	20	0	-90
BGC10070	370239.748	6590931.95	404.292	20	0	-90
BGC10071	370243.848	6590932.13	404.315	20	0	-90
BGC10072	370231.855	6590935.69	404.269	20	0	-90
BGC10073	370235.735	6590935.98	404.317	20	0	-90
BGC10074	370239.78	6590936.08	404.234	20	0	-90
BGC10075	370227.804	6590939.92	404.137	20	0	-90



HOLE-ID	GDA East	GDA North	mRL	Depth	Azimuth	Dip
BGC10076	370231.829	6590939.99	404.249	20	0	-90
BGC10077	370235.866	6590940.12	404.354	20	0	-90
BGC10078	370239.874	6590940.17	404.32	20	0	-90
BGC10079	370227.838	6590943.75	404.069	20	0	-90
BGC10080	370231.713	6590944.01	404.261	20	0	-90
BGC10081	370235.742	6590944.15	404.303	20	0	-90
BGC10082	370239.954	6590943.74	404.28	20	0	-90
BGC10083	370223.928	6590947.94	404.021	20	0	-90
BGC10084	370227.851	6590947.91	404.072	20	0	-90
BGC10085	370231.812	6590947.75	404.147	20	0	-90
BGC10086	370235.775	6590948	404.294	20	0	-90
BGC10087	370224.071	6590952.17	403.898	19	0	-90
BGC10088	370228.007	6590952.2	404.036	19	0	-90
BGC10089	370231.68	6590952.06	404.045	20	0	-90
BGC10090	370235.823	6590951.35	404.057	20	0	-90
BGC10091	370220.061	6590955.08	403.621	19	0	-90
BGC10092	370224.284	6590956.12	403.802	19	0	-90
BGC10093	370227.633	6590956.23	403.757	19	0	-90
BGC10094	370231.583	6590955.87	403.77	19	0	-90
BGC10095	370216.227	6590958.44	403.464	19	0	-90
BGC10096	370220.126	6590957.67	403.497	19	0	-90
BGC10097	370224.416	6590958.19	403.624	19	0	-90
BGC10098	370227.658	6590959.9	403.593	19	0	-90
BGC10099	370232	6590960	403.7	19	0	-90
BGC10102	370225.731	6590965.75	403.259	19	0	-90
BGC10103	370227.64	6590963.78	403.425	19	0	-90
BGC10104	370211.771	6590967.7	402.799	19	0	-90



HOLE-ID	GDA East	GDA North	mRL	Depth	Azimuth	Dip
BGC10105	370215.903	6590968.83	402.647	19	0	-90
BGC10106	370219.779	6590969.39	402.596	19	0	-90
BGC10107	370224.408	6590968.33	403.034	19	0	-90
BGC10108	370227.713	6590967.78	403.179	19	0	-90
BGC10109	370207.966	6590971.78	402.801	18	0	-90
BGC10110	370211.948	6590972.15	402.829	18	0	-90
BGC10111	370215.694	6590971.92	402.756	18	0	-90
BGC10112	370219.853	6590972.74	402.655	18	0	-90
BGC10113	370224.432	6590971.78	402.871	18	0	-90
BGC10114	370208.015	6590975.76	402.568	18	0	-90
BGC10115	370212.007	6590975.93	402.539	18	0	-90
BGC10116	370215.848	6590975.87	402.542	18	0	-90
BGC10117	370220.032	6590975.61	402.616	18	0	-90
BGC10118	370204.301	6590979.97	402.278	18	0	-90
BGC10119	370208.074	6590979.74	402.306	18	0	-90
BGC10120	370212.172	6590980.17	402.43	18	0	-90
BGC10121	370215.838	6590979.92	402.354	18	0	-90
BGC10122	370204.319	6590983.45	402.077	18	0	-90
BGC10123	370208.005	6590983.76	402.124	18	0	-90
BGC10124	370212.281	6590983.57	402.127	18	0	-90
BGC10125	370204.245	6590988	401.871	17	0	-90
BGC10126	370207.701	6590988.01	401.907	18	0	-90
BGC10154	370240.05	6590904.27	403.1709	18	0	-90
BGC10155	370248.601	6590903.78	403.2759	18	0	-90
BGC10156	370252.98	6590903.9	403.3063	18	0	-90
BGC10157	370256.298	6590903.98	403.358	18	0	-90
BGC10158	370260.561	6590903.12	403.3968	19	0	-90



HOLE-ID	GDA East	GDA North	mRL	Depth	Azimuth	Dip
BGC10159	370239.799	6590908.1	403.2746	19	0	-90
BGC10160	370252.858	6590908.34	403.5976	19	0	-90
BGC10161	370256.351	6590907.94	403.6455	19	0	-90
BGC10162	370260.5	6590907.74	403.6317	19	0	-90
BGC10163	370235.889	6590911.47	403.5189	19	0	-90
BGC10164	370252.63	6590912.37	403.7059	19	0	-90
BGC10165	370256.338	6590911.88	403.7557	19	0	-90
BGC10166	370235.646	6590915.03	403.9355	19	0	-90
BGC10167	370252.533	6590915.64	403.8957	19	0	-90
BGC10168	370256.252	6590915.59	403.9722	19	0	-90
BGC10169	370232.05	6590919.79	404.049	19	0	-90
BGC10170	370247.806	6590920.08	404.1091	19	0	-90
BGC10171	370252.369	6590919.56	404.1089	19	0	-90
BGC10172	370256.339	6590919.98	404.4089	19	0	-90
BGC10173	370231.859	6590923.92	404.2203	19	0	-90
BGC10174	370247.717	6590923.99	404.1065	19	0	-90
BGC10175	370252.076	6590924.1	404.2782	19	0	-90
BGC10176	370231.986	6590928.07	404.2271	19	0	-90
BGC10177	370247.609	6590927.99	404.3448	19	0	-90
BGC10178	370251.764	6590927.98	404.3694	19	0	-90
BGC10179	370228.075	6590932.4	404.1699	19	0	-90
BGC10180	370247.511	6590932.08	404.4236	19	0	-90
BGC10181	370251.457	6590931.85	404.5308	20	0	-90
BGC10182	370228.036	6590935.82	404.232	19	0	-90
BGC10183	370243.704	6590936.31	404.4141	19	0	-90
BGC10184	370247.278	6590935.91	404.4592	20	0	-90
BGC10185	370223.372	6590939.8	404.1399	19	0	-90



HOLE-ID	GDA East	GDA North	mRL	Depth	Azimuth	Dip
BGC10186	370243.694	6590939.88	404.461	20	0	-90
BGC10187	370247.186	6590940.12	404.5777	20	0	-90
BGC10188	370222.685	6590944.64	404.0673	8	0	-90
BGC10189	370243.819	6590943.65	404.4615	20	0	-90
BGC10190	370246.641	6590944.21	404.5925	20	0	-90
BGC10191	370219.596	6590947.97	403.9694	19	0	-90
BGC10192	370239.982	6590947.51	404.3562	19	0	-90
BGC10193	370243.423	6590948.13	404.4131	20	0	-90
BGC10194	370219.115	6590952.44	403.7124	19	0	-90
BGC10195	370240.35	6590951.85	404.1742	19	0	-90
BGC10196	370243.649	6590952.06	404.2311	19	0	-90
BGC10197	370215.971	6590954.75	403.6544	19	0	-90
BGC10198	370236.765	6590956.27	404.0038	19	0	-90
BGC10199	370240.063	6590956.02	404.0566	19	0	-90
BGC10200	370236.051	6590960.3	403.8575	19	0	-90
BGC10201	370242.735	6590957.57	404.1014	19	0	-90
BGC10202	370231.575	6590963.81	403.507	19	0	-90
BGC10203	370235.761	6590963.7	403.739	19	0	-90
BGC10204	370231.534	6590967.7	403.3853	18	0	-90
BGC10205	370235.964	6590968.21	403.5867	19	0	-90
BGC10206	370227.878	6590971.51	403.031	18	0	-90
BGC10207	370231.905	6590971.87	403.2085	18	0	-90
BGC10208	370223.833	6590975.68	402.8173	18	0	-90
BGC10209	370227.681	6590976	402.9812	18	0	-90
BGC10210	370220.056	6590979.85	402.5202	18	0	-90
BGC10211	370223.615	6590980.29	402.6184	18	0	-90
BGC10212	370200.527	6590984.48	402.0567	17	0	-90

HOLE-ID	GDA East	GDA North	mRL	Depth	Azimuth	Dip
BGC10213	370215.775	6590984.59	402.2563	17	0	-90
BGC10214	370220.286	6590983.97	402.3562	17	0	-90
BGC10215	370200.031	6590987.96	401.8083	17	0	-90
BGC10216	370212.124	6590988.49	402.0251	17	0	-90
BGC10217	370216.413	6590988.25	402.067	17	0	-90

### **Appendix 2 Drill Hole Gold Intercepts**

Significant intercepts are based on a three metre minimum length, with samples greater than 0.5 g/t Au and above included and a maximum of two consecutive metres of internal dilution. Interval grades are length weighted averages and therefore as all samples are an equivalent 1m length; interval grades are an average of the length of the interval.

Hole Number	From (m)	To (m)	Length (m)	Au Grade (g/t)
BGC10051	11	19	8	2.40
BGC10052	8	19	11	1.78
BGC10054	4	15	11	2.26
BGC10055	10	19	9	2.09
BGC10057	14	18	4	2.01
BGC10058	0	19	19	1.91
BGC10060	2	18	16	2.77
BGC10061	10	20	10	1.26
BGC10062	9	20	11	2.18
BGC10063	0	4	4	1.61
BGC10063	7	17	10	1.12
BGC10064	5	20	15	1.20
BGC10065	6	20	14	1.50
BGC10066	6	20	14	1.59
BGC10067	9	16	7	1.50
BGC10068	12	20	8	1.52

Hole Number	From (m)	To (m)	Length (m)	Au Grade (g/t)
BGC10069	0	11	11	1.06
BGC10069	15	20	5	1.07
BGC10070	0	18	18	1.49
BGC10071	6	14	8	1.13
BGC10072	9	19	10	1.63
BGC10073	0	17	17	2.05
BGC10074	4	20	16	1.30
BGC10075	14	18	4	2.14
BGC10076	5	16	11	2.27
BGC10077	3	20	17	1.70
BGC10078	7	10	3	1.13
BGC10079	11	20	9	1.59
BGC10080	2	18	16	1.62
BGC10081	0	20	20	1.89
BGC10083	15	18	3	1.61
BGC10084	8	19	11	2.48
BGC10085	0	20	20	1.43
BGC10086	0	7	7	0.92
BGC10086	10	20	10	1.36
BGC10087	11	15	4	2.00
BGC10088	3	13	10	1.74
BGC10089	0	20	20	2.36
BGC10090	7	20	13	3.53
BGC10091	16	19	3	1.53
BGC10092	5	19	14	2.22
BGC10093	0	16	16	1.77
BGC10094	0	17	17	1.16
BGC10096	14	18	4	1.67

Hole Number	From (m)	To (m)	Length (m)	Au Grade (g/t)
BGC10097	2	14	12	1.54
BGC10098	0	18	18	1.22
BGC10099	0	12	12	1.75
BGC10102	0	18	18	1.74
BGC10103	0	19	19	1.65
BGC10105	6	17	11	1.76
BGC10106	7	19	12	1.59
BGC10107	0	13	13	1.43
BGC10108	0	19	19	1.55
BGC10111	8	18	10	1.82
BGC10112	6	18	12	1.92
BGC10113	5	18	13	2.39
BGC10115	10	18	8	1.35
BGC10116	5	18	13	1.14
BGC10117	8	18	10	2.78
BGC10120	8	18	10	1.57
BGC10121	8	18	10	1.55
BGC10123	8	15	7	1.28
BGC10124	0	4	4	1.75
BGC10124	9	18	9	1.50
BGC10125	12	16	4	1.31
BGC10126	0	6	6	2.49
BGC10155	5	16	11	2.47
BGC10156	7	18	11	1.14
BGC10157	12	18	6	2.76
BGC10160	14	19	5	0.91
BGC10170	7	19	12	3.16
BGC10176	13	16	3	1.04
BGC10198	10	17	7	1.11

Trial Edward months and make the



Hole Number	From (m)	To (m)	Length (m)	Au Grade (g/t)
BGC10200	12	16	4	1.44
BGC10202	0	16	16	1.52
BGC10203	9	18	9	1.50
BGC10204	4	18	14	2.10
BGC10205	13	18	5	1.32
BGC10206	7	18	11	1.55
BGC10207	12	16	4	0.91
BGC10208	10	18	8	1.33
BGC10210	15	18	3	0.89

This 2 had a standard and the standard a