red metal limited

ACN 103 367 684

ASX Code: RDM

Red Metal Limited is a minerals exploration company focused on the exploration, evaluation and development of Australian copper-gold and basemetal deposits.

Issued Capital:

174,771,919
Ordinary shares

5,800,000
Unlisted options

Directors:

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Chairman

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Queensland Explorer of the Year 2013

ASX ANNOUNCEMENT
27 OCTOBER 2015

MARONAN DEPOSIT – SUMMARY OF INFERRED RESOURCE ESTIMATES

Red Metal is pleased to announce the results of maiden, JORC (2012) compliant, resource calculations on the separate lead-silver and copper-gold deposits at Maronan (Tables 1 to 4).

Cross section and level plans have been prepared providing lead grade envelope interpretations of the multiple lead-silver horizons (Figure 1). Resource estimates have been made applying a range of lower cut-offs to the lead grade as an aid to determining which parameters could best enhance the projects economics. The resource estimates for the fresh lead-silver mineralisation (Table 1, Figure 2) have defined an inferred resource of;

7.0 Mt at 10.68% lead and 144 g/t silver using a ≥8% lead cut-off grade;
19.2 Mt at 7.91% lead and 114 g/t silver using a ≥5% lead cut-off grade;
30.8 Mt at 6.50% lead and 106 g/t silver using a ≥3% lead cut-off grade;
45.3 Mt at 5.05% lead and 86 g/t silver using a ≥1% lead cut-off grade.

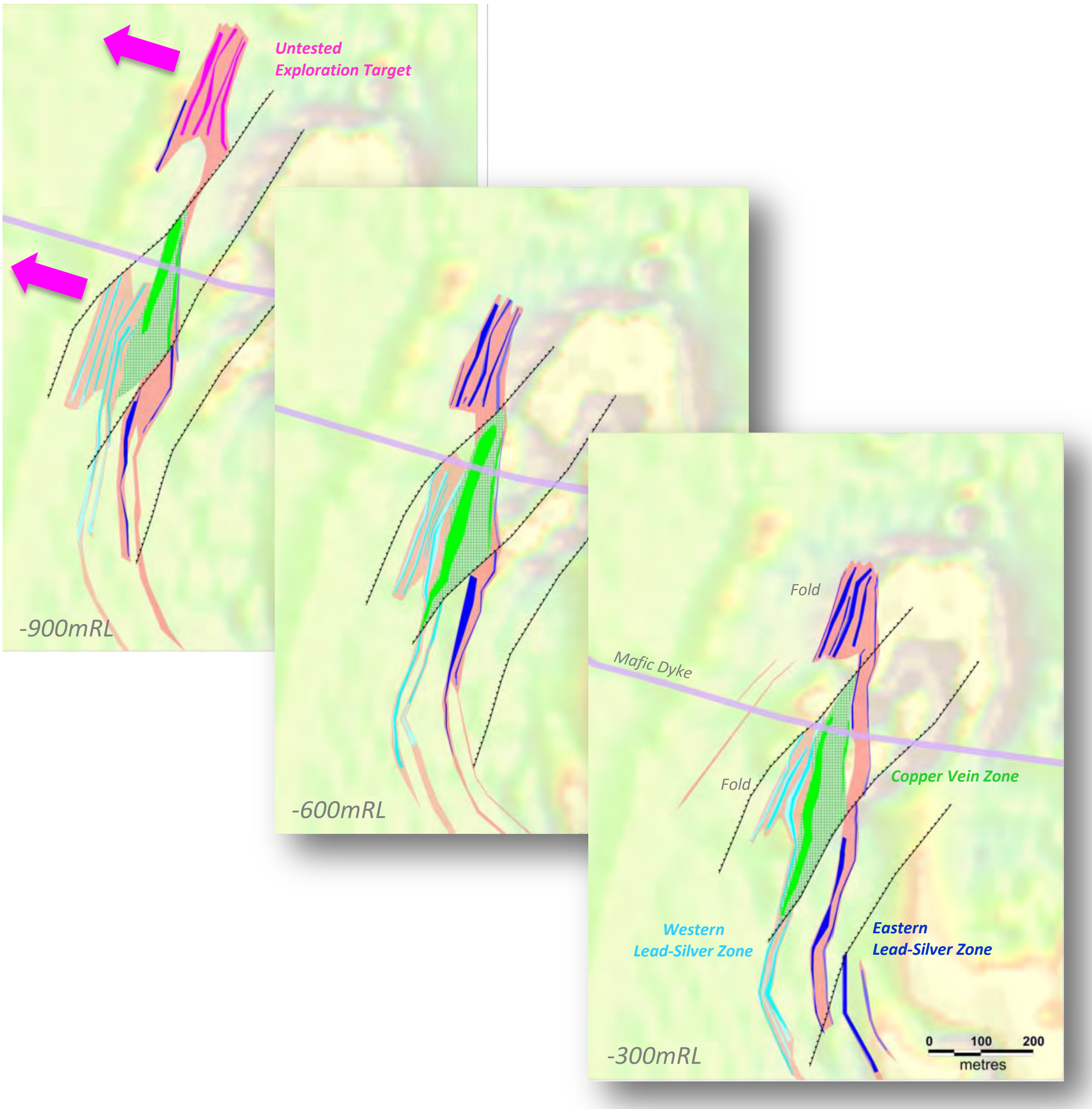
Resource estimates for the separate copper and gold deposit using a lower cut-off grade at ≥0.5% copper (Tables 3 and 4) defined a total inferred resource for the fresh and weathered mineralisation of;

19.2 Mt at 1.24% copper and 0.6 g/t gold.

Importantly, this work defined preferred regions of thicker and/or higher-grade lenses within the deposit and also identified priority areas which offer scope for defining mineable lenses at quite shallow depths including some within about 100 metres of surface. Both the lead-silver resource and copper-gold resource have steep west northwest plunges and remain open at depth (Figure 1).

Red Metal's ongoing work at Maronan has established a firm understanding of the deposit. It has significant size potential and the observed grade variations allow considerable flexibility in how its resources can be appraised. Maronan can be viewed as a large tonnage but moderate grade opportunity or as offering high grade resources of more limited tonnes. Three dimensional block models resulting from the resource calculations will now be used to facilitate underground mining studies and scenario models designed to aid assessment of the economic potential of the deposit.

For comparison, South 32 Limited recently announced the total measured, indicated and inferred resource for the underground sulphide mineralisation at the nearby Cannington Mine as *71 Mt at 4.86% lead, 3.26% zinc and 170g/t silver* using a net value cut-off of A$90 per tonne (refer to S32:ASX announcement dated 22 September 2015). Red Metal's understanding is the Cannington deposit (unlike Maronan) is closed-off at depth.



[Figure 1] Maronan Project: Interpreted geological level plans on magnetic image showing the trend of the host exhalative formation (buff polygons) and interpreted grade envelopes using a ≥3.0% lead cut-off grade (light blue western mineralised horizons, dark blue eastern mineralised horizons). Overprinting silica-carbonate-iron sulphide ± copper sulphide vein zone shown as light green hatching with the interpreted grade envelopes using a ≥0.5% copper cut-off grade shown as green with no hatching. Untested exploration target potential at the -900m RL shown in pink. Pink arrows highlight the down-plunge direction of the lead-silver and copper-gold resources.

Lead-Silver Inferred Resource (JORC 2012)

The Maronan lead-silver resource estimate benefited from Red Metal's new geological model and was constrained using manually interpreted, mineralisation envelopes at a lower cut-off grade of ≥3% lead and ≥1% lead (Table 1). This work divided the lead-silver deposit into the separate Western (Upper) mineralised zone and Eastern (Lower) mineralised zone distinguishable by their location, geochemistry and different silver to lead ratios (Figure 1). The Western and Eastern zones each contain between 2 and 6 parallel, planar horizons or lens of mineralisation which typically range from 1 to 10 metres in true thickness and appear to be tightly folded and thickened towards their northern ends (Figure 1). Locally lenses can have true widths of up to 20 metres.

Level plan interpretations show the individual horizons to be laterally continuous over about 200 metres with some up to 700 metres long. Cross section interpretations indicate very strong vertical continuity with planar horizons extending down-dip for greater than 1000 metres. Structural deformation forming steep west northwest plunging fold structures and elongation lineations is believed to have enhanced the vertical continuity and locally thickened some horizons. Interpreted northeasterly trending faults and the late-stage copper-gold mineralisation locally disrupt the continuity of some lead-silver horizons (Figure 1).

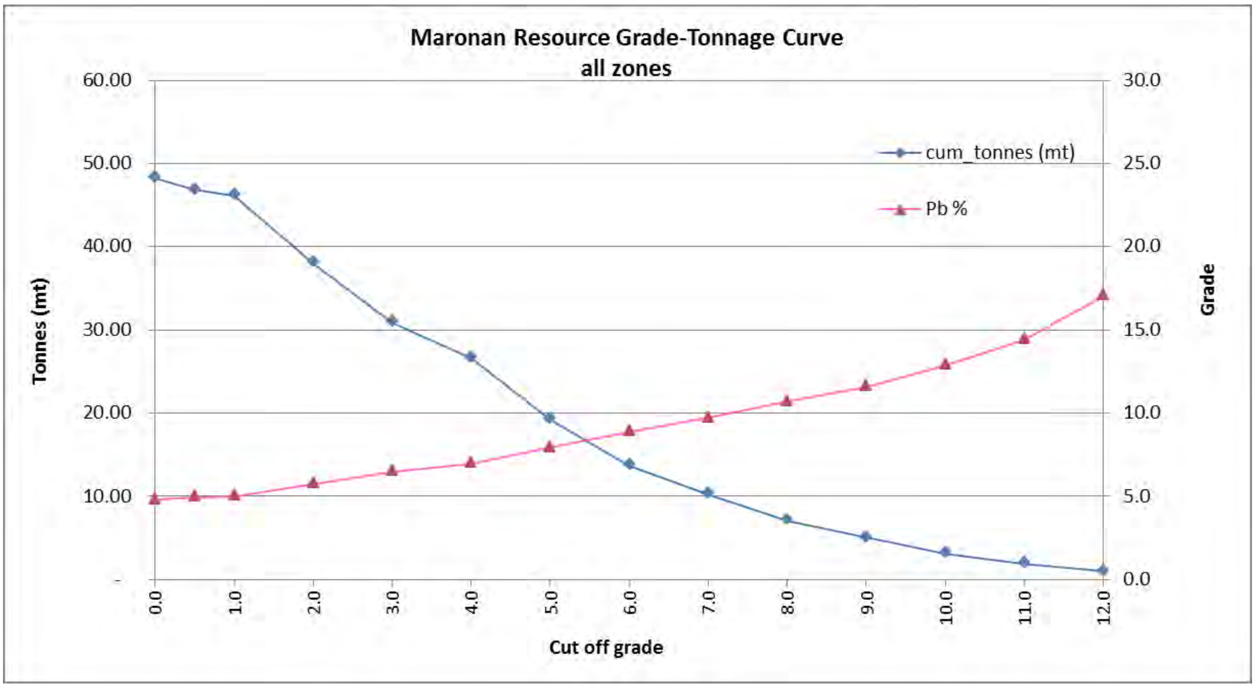
The majority of the inferred lead-silver resource (Table 1) is situated between about 200 and 1200 metres below surface with some small lens of potentially mineable mineralisation interpreted to extend to within about 100 metres of the surface. The mineralised horizons remain open at depth.

[Table 1] Maronan Project: JORC (2012) compliant inferred resource estimates for the **fresh** bedded lead-silver mineralisation style (galena) at differing lower cut-off grades. These computer resource estimates were constrained using geologist interpreted mineralisation envelopes at lower cut-off grades of ≥3% lead and ≥1% lead.

	Cut-off Lead %	Million Tonnes Mt	Grade Lead %	Grade Silver g/t	Contained Lead Million Tonnes	Contained Silver Million Oz	Comments
Fresh	1%	45.29	5.05	86	2.29	124.74	Geologist interpreted grade shell
	2%	37.70	5.76	96	2.17	115.87	
	3%	30.75	6.50	106	2.00	104.91	Geologist interpreted grade shell
	4%	26.52	6.97	109	1.85	92.95	
	5%	19.19	7.91	114	1.52	70.61	
	6%	13.67	8.87	126	1.21	55.23	
	8%	7.04	10.68	144	0.75	32.68	
	10%	3.09	12.86	171	0.40	16.99	

[Table 2] Maronan Project: JORC Compliant inferred resource estimate for the **weathered** bedded lead-silver mineralisation style (lead carbonate?) at a ≥3% lead cut-off grade. This computer resource estimate was constrained using geologist interpreted mineralisation envelopes at cut-off grades of ≥3% lead and ≥1% lead.

	Cut-off Lead %	Million Tonnes Mt	Grade Lead %	Grade Silver g/t	Contained Lead Million Tonnes	Contained Silver Milion Oz	Comments
Weathered	3%	2.21	5.25	8	0.12	0.56	Geologist interpreted grade shell



[Figure 2] Maronan Project: Grade-tonnage curve for JORC (2012) compliant inferred resource estimates for the **fresh** bedded lead-silver mineralisation style (galena) at differing cut-off grades. These computer resource estimates were constrained using geologist interpreted mineralisation envelopes at lower cut-off grades of ≥3% lead and ≥1% lead.

Copper-Gold Inferred Resource (JORC 2012)

The inferred copper-gold resource at Maronan was constrained using manually interpreted, mineralisation envelopes at a lower cut-off grade of ≥0.5% copper (Table 3). The inferred resource is contained within two planar, parallel lenses that flank a wide stockwork vein zone of silica-carbonate-pyrrhotite which is essentially unmineralised (Figure 1). The majority of the resource is within the larger western lens which in plan is about 400 metres long, 25 metres wide tapering to about 5 metres towards the ends. Cross section interpretations indicate very strong vertical continuity with the western lense extending down-dip for greater than 900 metres. The lenses have a steep west northwest plunge and remain open at depth where the grades appear to be improving.

The bulk of the copper and gold resources are situated between about 170 and 1200 metres below surface with narrow lenses of mineralisation interpreted to extend to within about 50 metres of surface.

A small inferred resource of chalcocite with minor native copper mineralisation is recognised in the weathered zone above the fresh chalcopyrite mineralisation (Table 4). Weathering of the primary sulphide mineralisation generally extends to less than about 80 metres below surface however it is locally deeply weathered to about 800 metres on the western margin of the copper vein zone immediately south of the cross cutting mafic dyke shown in Figure 1. Core recoveries for the weathered style of mineralisation are generally low which may have resulted in an underestimate of the contained metal content in the weathered zone.

[Table 3] Maronan Project: JORC (2012) Compliant Inferred Resources for the **fresh** (chalcopyrite) copper-gold mineralisation style. These computer resource estimates were constrained using geologist interpreted mineralisation envelopes at a lower cut-off grade of ≥0.5% copper. Tabulated results rounded for presentation purposes

	Cut-off Copper %	Million Tonnes Mt	Grade Copper %	Grade Gold g/t	Contained Copper 1000 Tonnes	Contained Gold 1000 Oz	Comments
Fresh	0.5%	17.23	1.27	0.64	218.1	354.5	Geologist interpreted grade shell
	1%	11.13	1.56	0.84	170.3	299.7	
	2%	1.65	2.24	1.69	36.8	89.3	

[Table 4] Maronan Project: JORC Compliant Inferred Resource for the **weathered**, copper-gold mineralisation style (chalcocite, native copper). These computer resource estimates were constrained using geologist interpreted mineralisation envelopes at a lower cut-off grade of ≥0.5% copper.

	Cut-off Copper %	Million Tonnes Mt	Grade Copper %	Grade Gold g/t	Contained Copper 1000 Tonnes	Contained Gold 1000 Oz	Comments
Weathered	0.5%	1.95	1.02	0.37	19.9	23.4	Geologist Interpreted grade shell
	1%	0.75	1.31	0.41	9.9	9.9	

For further information concerning Red Metal's operations and plans for the future please refer to the recently updated web site or contact Rob Rutherford, Managing Director at:

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Rob Rutherford
Managing Director

Russell Barwick
Chairman

The information in this report that relates to Exploration Results and estimates of Mineral Resources is based on and fairly represents information and supporting documentation compiled by Mr Robert Rutherford, who is a member of the Australian Institute of Geoscientists (AIG). Mr Rutherford is the Managing Director of the Company. Mr Rutherford 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" (the JORC Code). Mr Rutherford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

[Table 5] Maronan Project: JORC 2012 sampling techniques and data

Criteria	JORC 2012 Explanation	Commentary
Sampling Techniques	***Nature and quality of sampling***	*The extent of mineralisation at Maronan has been defined by 54 HQ/NQ diamond core drill holes drilled by five different companies since 1987 until the present (Table 10). The spacing between drill hole pierce points when viewed on a longitudinal section is about 200 metres both vertically and laterally but varies between about 100 and 400 metres. The 54 holes average 631m deep and range in depth between 150m and 1469m. Holes were generally angled towards grid east between -55 and -90 degrees to optimally intersect the mineralised zone.* *Physical core is available for 39 of the 54 holes. Paper copies of original laboratory reports and geological logs are available for 19 historic holes. Digital laboratory reports and geological and geophysical logs are available for the 35 more recent holes.*
	Include reference to measures taken to ensure representativity samples and the appropriate calibration of any measurement tools or systems used.	*At Maronan ½ NQ2 core or ¼ HQ diameter core has been sampled to ensure sample representativity for all holes. Continuous geologically defined intervals were regularly sampled at a 1.0 meter interval locally down to 0.4 metre or up to 1.5m based on geological controls. These high quality samples were logged for lithology, density, magnetic susceptibility, structure, RQD and other attributes.* *Second ¼ core duplicate samples were collected at selected intervals to check sample representativity. Quality control checks using standards, blanks or duplicates are included at a sample rate varying from about one in ten to one in twenty.*
	Aspects of the determination of mineralisation that are Material to the Public Report.	*Diamond core drilling was used to obtain nominal 1 metre samples from which up to 3kg of ½ or ¼ NQ2 or ¼ HQ diameter core was pulverised to produce a sub-sample for four-acid (near total) digest and multi-element analysis using ICP/OES and ICP/MS determinations. Gold was determined using a separate 50g charge for fire assay. High-grade base metal results >1% were repeated using an ore-grade ICP/AES technique which utilises an aqua-regia acid digest suitable for high-sulphide ores.*
Drilling Technique	***Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).***	*A conventional wire-line core rig was utilised to extract PQ, HQ2 and then either HQ or NQ2 diameter core samples in mineralisation.* *The 35 more recent holes have oriented cores. Core orientation measurements were attempted every 3 to 6 metre core run using a Reflex ACT orientation tool. The majority of measurements were successful.*
Drill Sample Recovery	***Method of recording and assessing core and chip sample recoveries and results assessed.***	*The length of recovered core and the core rock quality are logged for each core run. Core recovery throughout the fresh sulphide mineralised zones is very good (100%). Recoveries throughout the weathered mineralised zones are variable from 100% to less than 30% in some intervals. Core recoveries for the weathered copper vein zone material are very poor which may have resulted in an underestimate of the contained metal content in this zone.*
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	*Diamond core is reconstructed into continuous runs on an angle iron cradle and marked with orientation lines. Depths are checked against depths marked on the core blocks and rod counts are routinely performed by the drillers.*
	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.	*Insufficient data is available to determine a bias relationship between poor sample recovery and grade. Twinning of holes with poor sample recovery is required in the weathered zone.*
Logging	***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.***	*Quantitative geotechnical logging including RQD, core recovery, fracture frequency, and qualitative hardness are measured for each core run.* *Qualitative and quantitative codes and descriptions are used to record geological data such as lithology, mineralisation, alteration and structure prior to sampling. Magnetic susceptibility is quantified for every assay*

Criteria	JORC 2012 Explanation	Commentary
	Whether logging is qualitative or quantitative in nature.	*sample interval (about 1 metre) within the mineralised section and every core run (3 to 6 metres) within the hanging wall and footwall rocks. Density is quantified for every assay sample interval.*
	Core photography	*Core is photographed wet and dry.*
	The total length and percentage of the relevant intersections logged.	*All holes have been geologically logged. All 35 recent holes geotechnically logged.*
Sub-sampling techniques and sample preparation	***If core, whether cut or sawn and whether quarter, half or all core taken.***	*All mineralised core holes were sampled using either sawn ½ NQ2 or ¼ HQ2 diameter core. Core was cut so as to preserve the orientation mark.* *Pre-collar material is logged but not assayed and preserved as a record in either chip trays, bags or PQ core.*
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	*The sample preparation of recent diamond cores follows industry best practice and sample preparation involving oven drying, coarse crushing of the ½ NQ2 core or ¼ HQ core sample to 70% <6mm then pulverising of the whole (<3kg) sample to 85% < 75 microns.*
	Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.	*Quality controls have been variable during the life of the project (Table 10). For the most recent Red Metal drilled holes, some BHPB drill holes and Phelps Dodge holes (Table 10) field quality control procedures involve using certified reference materials as assay standards along with blanks and sample duplicates. The insertion rate for standard, blanks and duplicates in the mineralised zones varies from about one in ten samples to one in twenty samples. In weathered zones with native copper blank quartz washes were used between each sample to avoid contamination from the malleable native copper during crushing and grinding.*
	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.	*All mineralised intervals were sampled using ¼ HQ or ½ NQ2 core. Second ¼ core NQ2 and HQ duplicate samples were assayed to check sample representativity at selected intervals. ¼ core NQ2 duplicates show a good correlation to about 5% lead but a higher variance for lead grades > 5%. ¼ HQ duplicates show a good correlation. MRN14001A to MRN14008 show a variability of between 10% and 15% in areas of gold >1g/t.*
	Whether sample sizes are appropriate to the grain size of the material being sampled.	*The ½ NQ2 and ¼ HQ sample size are considered appropriate to correctly represent the sulphide mineralisation based on the styles of mineralisation (medium-coarse-grained, bedded lead sulphide and medium-grained copper vein zones), the thickness and consistency of the intersections, the sampling methodology and the percentage assay grade range of the mineralisation.*
Quality of assay data and laboratory tests	***The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.***	*Recent samples use four acid (near total) digest techniques and multi-element analysis using an ICP/MS determination which is of high quality and appropriate for the fresh sulphide and weathered mineralisation at Maronan. The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids suitable for silica and sulphide based samples. High-grade base metal results >1% were repeated using an ore-grade ICP/AES technique which utilises an aqua-regia acid digest suitable for high-sulphide ores. Aqua-regia digest is a powerful solvent for sulphides and ideal for determination of base metals and silver in sulphide rich ores. Aqua-regia digest with an ICP/MS determination offers high-quality, reliable detection ranges for lead 0.001 to 20%, copper 0.001 to 50% and silver 1-1500g/t and is considered appropriate for the higher grade fresh sulphide and weathered mineralisation styles at Maronan. Any zinc, lead, copper or silver in resistive silicate minerals will not be reliably detected with this method.*
	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.	*No geophysical tools were used to determine element concentrations at Maronan*

Criteria	JORC 2012 Explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	*Although variable through the projects history, industry standard quality control and assurance procedures have been applied to the 16 more recent holes drilled by Red Metal and some BHPB and Phelps Dodge drilled holes (Table 10). Records for the BHPB drilled holes are incomplete. No quality control records are available for the 19 historic holes drilled by Shell Minerals and MPI.* *For recent samples certified reference materials with a good range of values and blanks were inserted blindly and randomly at a rate of between one in ten and one in twenty over the mineralised intervals while the laboratory routinely inserts blanks and runs duplicate checks from the pulverised sample. All base metal results greater than 1% are re-assayed using an ore-grade technique. Results highlight that the sample assay values are accurate and that contamination has been contained. Routine repeat or duplicate analyses by the laboratory reveal the precision of the analysis is within acceptable limits.* *The QA/QC procedures of the historic assay data drilled by Shell Minerals and MPI are unknown and their level of accuracy and precision is unknown. Quality control data from the 2006 and 2007 BHPB drilling are also unknown at this stage and their level of accuracy and precision is unknown.*
Verification of sampling and assaying	***The verification of significant intersections by either independent or alternative company personnel.***	*All available cores have been visually verified by the Managing Director and a Senior Geologist. Selected intervals were verified by the Company's non-executive director.*
	The use of twinned holes.	*No holes have been twinned at this stage of exploration.*
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	*Primary data was entered in the field into a portable logging device using standard drop-down codes. Text data files are exported and stored in an Access database. MapInfo software is used to check and validate drill-hole data.*
	Discuss any adjustment to assay data.	*No adjustments or calibrations were used in any of the assay data.*
Location of data points	***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.***	*The collar position for all 35 recent drill holes have been surveyed by Handheld GPS using MGA_GDA94, Zone54 datum.* *All holes in the Maronan database have been surveyed down-hole using Reflex style and conventional Eastman down-hole cameras. Gyroscope surveys have been completed on 9 of the recent Maronan holes. The collar positions of historical holes were located using a locally established grid with an AGD66 datum. Location accuracy of the historical holes is estimated at 1-5 metres. Recent holes have been located using hand held GPS systems accurate to about 2-5 metres.* *Holes MRN14002, MRN14003, MRN14004, MRN14007 and MRN14008 were re-surveyed using a Reflex down-hole gyroscope. Results from the gyro survey indicate that the end-of-hole position determined by the Reflex survey instrument is typically within 5 metres to 30 metres of the gyroscopically surveyed locations.*
	Specification of the grid system used.	*The 35 recent holes use MGA_GDA94_Zone54 datum. Historic holes used a local grid with an AGD66 datum and have been converted to a MGA_GDA94 datum.*
	Quality and adequacy of topographic control.	*Topographic relief has been surveyed during a detailed 50 metre x 50 metre gravity survey. The region is flat with relief varying less than 3 metres over the project area.*
Data spacing and distribution	***Data spacing for reporting of Exploration Results.***	*The spacing between drill hole pierce points when viewed on a longitudinal section at Maronan is about 200 metres both vertically and laterally but locally varies between about 100 and 400 metres. MRN14007 is about 31 metres north and 66 metres vertically below the pierce point of MRN13002.*

Criteria	JORC 2012 Explanation	Commentary
	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.	*The drill pierce point spacing is sufficient to outline the structural geometry, broad extent of mineralisation and grade variations in the mineral system and is of sufficient spacing and distribution to infer a Mineral Resource.*
	Whether sample compositing has been applied.	*No sample compositing has been applied*
Orientation of data in relation to geological structure	***Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.***	*Bedded mineralisation appears folded about steep plunging tight to isoclinal fold structures. Limbs of the folds and the axial planar foliation are sub-parallel and dip between 60 and 80 degrees towards the west northwest. Structural remobilised mineralisation in MRN14007 and other holes appears to parallel the axial plane to the northern fold structure which dips between 60 and 80 degrees towards the west northwest. East directed drilling provides a representative, unbiased sample across the isoclinal folded bedded mineralisation and axial planar, structure remobilised mineralisation. The core to bedding angle of mineralisation typically varies between 20 and 50 degrees but can be locally more or less were bedding is folded.*
	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.	*Continuity of the lead and silver mineralisation appears to have a steep bias, in the down dip-direction of the bedding, down the plunge direction of the northern fold structure. Fold structures, mineral and intersection lineations measured from the core indicate a steep plunge of about 70 degree towards 284 degree (grid). Causes of lateral and vertical variations of the grade and thickness of mineralisation within the bedding planes have not been resolved because of the wide spacing of the drilling.*
Sample security	***The measures taken to ensure sample security.***	*Chain of custody is managed by Red Metal. Samples from Maronan are packaged and stored at the company's field house in Cloncurry. The company's personal deliver the samples to NQX freight office in Cloncurry for deliver to a laboratory in Townsville. The freight company and laboratory provide an online tracking service for all samples.*
Audits or reviews	***The results of any audits or reviews of sampling techniques and data.***	*No external audits have been undertaken at this early stage.*

[Table 6] Maronan Project: JORC 2012 reporting of exploration results

Criteria	JORC 2012 Explanation	Commentary
Mineral tenement and land tenure status	***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.***	*Maronan is located within EPM 13368 situated in the Cloncurry region of north-west Queensland. EPM 13368 is owned 100% by Red Metal Limited. No material ownership issues or agreements exist over the tenement. An ancillary exploration access has been established with the native title claimants and a standard landholder conduct and compensation agreement has established with the pastoral lease holders.*
	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	***Acknowledgment and appraisal of exploration by other parties.***	*The extent of mineralisation at Maronan has been defined by 54 diamond core drill holes drilled by five different companies since 1987 until the present (Table 10). Shell Minerals/Billiton/Acacia discovered base metal mineralisation on the project in 1987 and completed 16 shallow holes to 1993. From 1995 to 1996 MPI completed 3 holes into the northern and southern fold hinge structures. From 2001 to 2004 Phelps Dodge completed 6 holes. BHP Cannington undertook a campaign of lead-silver exploration from 2006 to 2008 completing 13 holes. Red Metal Limited has completed 16 holes from 2011 to the present seeking depth extensions to the bedded lead-silver and separate copper-gold mineralisation.*
Geology	***Deposit type, geological setting and style of mineralisation.***	*Exploration on Maronan has identified two separate styles of mineralisation, bedded lead-silver mineralisation partially overprinted by structurally controlled, copper-gold mineralisation.* *The lead-silver mineralisation is of a similar style to the nearby Cannington deposit, one of the world's largest silver and lead producing operations. The Maronan lead-silver mineralisation occurs in two separate but sub-parallel banded carbonate-lead sulphide-magnetite-calcsilicate units referred to as the Western (Upper) Banded Lead Sulphide and Eastern (Lower) Banded Lead Sulphide horizons. The two horizons can be separated by up to 100 metres of quartz clastic meta-sediments (psammites, pelites and quartzite). At the northern fold structure the horizons are folded forming a steep plunging tight to isoclinal fold structure with attenuated or transposed limbs and a thickened hinge zone region.* *The overprinting copper-gold mineralisation can be compared with the IOCG mineralisation styles at the nearby Eloise and Osborne ore bodies. Mineralisation is associated with intense silica alteration within a bedding-parallel structure focused between the Western and Eastern Lead-Silver mineralised zones and comprises strong pyrrhotite with variable chalcopyrite and minor magnetite.* *Both mineralisation styles have shown improvement in grade and widths at depth and remain open down-plunge and at shallow levels between the existing wide spaced intercepts.*
Drill hole Information	***A summary of all information material to the understanding of the exploration results including a tabulation of survey information for all Material drill holes:***	*Refer to Table 10 for a summary of drill hole collar survey data for the whole deposit.*
Data aggregation methods	***In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.***	*All mineralised intervals have been length weighted. No top-cuts have been applied. Grade envelopes using a ≥3% lead and ≥1% lead lower cut-off grade were applied to constrain the resource estimation for the lead-silver resources. A grade envelope using ≥0.5 % copper lower cut-off grade was applied when calculating the copper-gold resource.*
	The assumptions used for any reporting	*No metal equivalent assumptions are used in this resource calculation*

Criteria	JORC 2012 Explanation	Commentary
	of metal equivalent values should be clearly stated.	*and none are reported.*
Relationship between mineralisation widths and intercept lengths	***These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').***	*True widths for each hole are estimated by measuring the alpha and beta values relative to the oriented core axis for bedding, banding or veining throughout the footwall, hangingwall and mineralised zone. Where possible measures are taken every sample interval throughout the mineralised zone. Estimates of the true width are calculated using the detailed orientation data.*
Diagrams	***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.***	*Refer to Figures 1 in this report showing interpreted geological level plans with grade shells for the -300m RL, -600mRL and -900m RL for the deposit.*
Balanced reporting	***Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.***	*Refer to Table 8 for a summary of assay results used in this resource calculation when applying a lower cut-off grade of ≥1% lead. Refer to Table 9 for a summary of assay results used the copper-gold resource calculation when applying a lower cut-off grade of ≥0.5% copper.* *Summary resource results presented in Tables 1 to 4 have been rounded – silver g/t to nearest 1g/t, contained lead to nearest 0.01 million tonnes, contained silver to nearest 0.01 million ounces, contained copper to nearest 100t, contained gold to nearest 100 Oz*
Other substantive exploration data	***Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.***	*The total number of specific gravity measurements on the project is 2109 (Table 10). The specific gravity of the lead and silver mineralisation from the 2014 program ranges from 2.37 to 4.28 and averages about 3.17.* *Preliminary metallurgical test results were presented in an ASX announcement released on 29 July 2015.*
Further work	***The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).***	*This inferred resource and block model together with the preliminary metallurgical results will aid underground mining studies and scenario modelling which are scheduled to begin shortly. This work will enable Red Metal to better assess the geological and commercial significance of the deposit. Future work programs will be designed once this interpretation is complete.*

[Table 7] Maronan Project: JORC 2012 reporting of resources

Criteria	JORC 2012 Explanation	Commentary
Database integrity	***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.***	*Original database is held by Red Metal in an Access Database and MapInfo Discover Drill database. Data was extracted as comma delimited files for import into MicroMine to generate block models. Historical data has been compiled from paper copies. Recent data is entered directly from source. Access is a relational data management system and an industry standard.*
	Data validation procedures used.	*Normal data validation checks were completed on import to the database. Majority of the historical data has been checked to hard copy results where they exist. Summary geological logs interpreted from the historic data have been entered into the current database.*
Site visits	***Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*** ***If no site visits have been undertaken indicate why this is the case.***	*Rob Rutherford (CEO and Chief Geologist Red Metal Limited) has visited the site on numerous occasions between 2003 and present. Greg Kary (Senior Geologist Red Metal Limited) has been in charge of the project from 2001 to present and has spent several months logging core from the project*
Geological interpretation	***Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.***	*Confidence in the geological interpretation is considered to be high. Drill intersections of the mineralised host rock have regularly been within a few metres of predicted target location indicating a strong understanding of the geology and geometry of the deposit.*
	Nature of the data used and of any assumptions made.	*The bedded lead and silver mineralisation occurs within geologically distinct, bedded and locally folded, carbonate silica sulphide dominant exhalative horizons which show good lateral and vertical continuity from drill section to drill section. The mineralised hosts dip at between 65 and 80 degrees towards the west. The two main zones of thickening occur within steep west northwest plunging fold structures (Figure 1). All modern cores were oriented allowing detailed measures of bedding and foliation surfaces, lineations and fold orientations throughout the deposit which has been used to constrain interpretation of the geology between sections and level plans.*
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	*The computer ore resource estimation was initially constrained using the manually (geologist) interpreted grade envelopes at a ≥1% lead cut-off grade presenting tonnage and grade estimates at lower cut-off grades of 1%, 3%, 5% 8% and 10% lead. This computer ore resource estimation approach was repeated, this time constrained using the manually interpreted grade envelopes at a lower cut-off grade of ≥3% lead. The resource estimates resulting from the manually interpreted grade envelopes were shown to be within about 10% of the computer derived grade envelopes at the same cut-off grades - suggesting a robust and reliable computer model.*
	The use of geology in guiding and controlling Mineral Resource estimation.	*E-W oriented, geological cross sections were interpreted every 100m across the total length of the deposit closing down to 50m in more complex areas. Level plan geological interpretations were constructed every 100m vertically through the deposit. The geological model was constructed in MapInfo 3D. The geological model was used as a guide to manually interpreted grade envelopes using a lower cut-off grade of ≥1% lead and ≥3% lead*
	The factors affecting continuity both of grade and geology.	*The mineralised horizons have been affected by both shearing and folding. Folding tends to thicken the zones and shearing locally breaks the zones up. Structural deformation forming steep west northwest plunging fold structures and elongation lineations is believed to have enhanced the vertical continuity and locally thickened some horizons. Grade tends to be enhanced in the fold hinge regions. Interpreted north-easterly trending faults and the late-stage copper-gold mineralisation locally disrupt the continuity of some lead-silver horizons.*

Criteria	JORC 2012 Explanation	Commentary
Dimensions	***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.***	*The Maronan lead-silver resource estimate benefited from Red Metal's new geological model and was constrained using manually interpreted, mineralisation envelopes at a lower cut-off grade of ≥3% lead and ≥1% lead (Table 1). This work divided the lead-silver deposit into the separate Western (Upper) mineralised zone and Eastern (Lower) mineralised zone distinguishable by their location, geochemistry and different silver to lead ratios (Figure 1). The Western and Eastern zones each contain between 2 and 6 parallel, planar horizons or lens of mineralisation which typically range from 1 to 10 metres in true thickness and appear to be tightly folded and thickened towards their northern ends (Figure 1). Locally lenses can have true widths of up to 20 metres.* *Level plan interpretations show the individual horizons to be laterally continuous over about 200 metres with some up to 700 metres long. Cross section interpretations indicate very strong vertical continuity with planar horizons extending down-dip for greater than 1000 metres. Structural deformation forming steep west northwest plunging fold structures and elongation lineations is believed to have enhanced the vertical continuity and locally thickened some horizons. Interpreted north-easterly trending faults and the late-stage copper-gold mineralisation locally disrupt the continuity of some lead-silver horizons (Figure 1).* *The majority of the inferred lead-silver resource (Table 1) is situated between about 200 and 1200 metres below surface with some small lens of potentially mineable mineralisation interpreted to extend to within 100 metres of the surface. The mineralised horizons remain open at depth.* *The inferred copper-gold resource at Maronan was constrained using manually interpreted, mineralisation envelopes at a lower cut-off grade of ≥0.5% copper (Table 3). The inferred resource is contained within two planar, parallel lenses that flank a wide stockwork vein zone of silica-carbonate-pyrrhotite which is essentially unmineralised (Figure 1). The majority of the resource is within the larger western lens which in plan is about 400 metres long, 25 metres wide tapering to about 5 metres towards the ends. Cross section interpretations indicate very strong vertical continuity with the western lens extending down-dip for greater than 900 metres. The lenses have a steep west northwest plunge and remain open at depth where the grades appear to be improving.* *The bulk of the copper and gold resources are situated between about 170 and 1200 metres below surface with narrow lenses of mineralisation interpreted to extend to within about 50 metres of surface.* *A small inferred resource of chalcocite with minor native copper mineralisation is recognised in the weathered zone above the fresh chalcopyrite mineralisation (Table 4). Weathering of the primary sulphide mineralisation generally extends to less than about 80 metres below surface however it is locally deeply weathered to about 800 metres on the western margin of the copper vein zone immediately south of the cross cutting mafic dyke shown in Figure 1. Core recoveries for the weathered style of mineralisation are generally low which may have resulted in an underestimate of the contained metal content in the weathered zone.*
Estimation and modelling techniques	***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.***	*Lead, silver, copper and gold resources were estimated by Computer Resource Consultant Luke Burlet of H&SC using the Inverse Distance Weighting (IDW) technique in MicroMine software. Nominal 1.0m sample composites were used.* *For the lead model, two sets of mineralised domains were defined by Red Metal using nominal grade thresholds of 1% lead and ≥3% lead within the host unit. For the copper model Red Metal defined a mineralisation domain defined at ≥0.5% copper. Red Metal's lead model, at ≥1% lead nominal cut off, consists of numerous 'lenses' varying in width between <1m and up to 20m. Domains vary in the strike and dip of lead mineralisation, but in general the gross strike varies between 010N and 020S.* *Red Metal's mineralisation interpretation for lead-silver and copper-gold*

Criteria	JORC 2012 Explanation	Commentary
		was used as the framework for resource estimation, and mineralised domains were defined using lead (≥1% and ≥3% nominal wireframes) and copper grades (0.5%) within the host unit. The mineralised zones were treated as having hard boundaries during grade estimation. Oxidation was treated as a soft boundary due to its gradational nature. *IDW was considered an appropriate method given the strongly continuous and layered nature of the lead mineralisation within the host unit and low skewness of grade distributions in all domains. A three pass search strategy was used, with search radii of 150mx150mx50m, for the first two passes which were doubled for the third. The search ellipsoid orientation was set to 180N for each domain and the maximum extrapolation distance was 300m. A minimum of 3 samples and 2 holes was used to estimate each block in the first pass, minimum of 2 samples and 1 hole in the second pass and minimum of 1 sample and 1 hole in the third pass* *Estimates for lead were generated separately using 1% lead domains and then again with ≥3% lead domains. Estimates compare favourably with each other.* *The highly constrained model, by way of the constraining lead mineralisation lenses and copper ≥0.5% mineralisation, does not incorporate any dilution.*
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	*No reconciliation data is available because the deposit is unmined.*
	The assumptions made regarding recovery of by-products.	*Only lead and silver production is anticipated as the major metals, with copper-gold potentially being by-products. No assumptions are made about recovery of by-products.*
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	*No deleterious elements or other non-grade variables of economic significance were estimated.*
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	*Nominal hole spacing is typically 200mx200m, but varies between 100m and 400m in across the area. The individual block size is 2mX2mX2m. Thus the block size corresponds to about 1/100 the data spacing in the horizontal plane.*
	Any assumptions behind modelling of selective mining units.	*The small block size was requested by Red Metal so that the block model could be better visualised with respect to the geologist interpreted lead lenses, especially the narrow ones and constrain blocks to within the individual host lenses. This small block size likely does not reflect the possible selective mining unit.*
	Any assumptions about correlation between variables.	*Correlation between lead with silver and copper with gold is moderate to poor, both globally and within each domain. Each element was modelled separately.*
	Description of how the geological interpretation was used to control the resource estimates.	*The lead-silver mineralisation is bedding parallel and host within a bedded exhalative horizon. Geological logs and structural bedding measurements were used to interpret a 3D geological model highlighting the trends of the bedded host rocks. E-W trending geological cross sections were interpreted every 100m over the total length of the deposit and level plans every 100m vertically to -900m RL. This geological model mapped the broad trends of the bedded exhalative horizon and lead-silver horizons as well as the separate copper-gold lenses.*
	Discussion of basis for using or not using grade cutting or capping.	*Grade trimming was not applied for the estimates due to low skewness of grade distributions.*
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	*The estimates were validated in a number of ways – visual comparison of block and drill hole grades (in plan and section and 3D), statistical analysis, examination of grade-tonnage data, and for the lead model comparing the model based on ≥1% wireframes at a ≥3% cut-off to that*

Criteria	JORC 2012 Explanation	Commentary
		of the ≥3% wireframes at the same cut-off. The comparisons of model and drill hole data show that the estimates appear reasonable.
Moisture	***Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.***	*Tonnages have been estimated on a dry basis using available drill core density measurements*
Cut-off parameters	***The basis of the adopted cut-off grade(s) or quality parameters applied.***	*The nearby Cannington underground mine use a net value cut-off of A$90 per tonne which equates to about a 3.5%-5.5% lead cut-off grade depending on the lead and silver price and value of the Australian dollar. At Maronan a ≥3% lead cut-off grade was utilised because with silver credits its net-value is considered close or just below the most likely underground mining cut-off grade for the deposit.*
Mining factors or assumptions	***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.***	*No mining studies have been undertaken at Maronan. The three dimensional block models resulting from this resource calculation will be used to facilitate underground mining studies and scenario models designed to aid assessment of the economic potential of the deposit.*
Metallurgical factors or assumptions	***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***	*A summary of preliminary metallurgical results for Maronan was lodged with the ASX on 29 July 2015.*
Environmental factors or assumptions	***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.***	*No environmental assessment has been made at this stage in the project. The project is located in a flat lying region of open pastoral land and it is assumed ample space exists for potential mine infrastructure. The climate is arid with a wet season during the summer months. Base metal mines successfully operate in the district with minimal impact on the environment.*
Bulk density	***Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether***	*Density measurements have been completed on the majority of the Red Metal drill holes (Table 10). The total number of specific gravity measurements on the project is 2109 (Table 10). Selected samples are*

Criteria	JORC 2012 Explanation	Commentary
	wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. ***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.***	*weighed in air then weighed in water and a calculation completed. In mineralised areas, a density measurement is completed for each sample collected. In non-mineralised areas a sample is selected from a normal core run, which is generally every 6m.* *The majority of the core is fresh and is very competent and non-porous. In areas of high weathering some samples were wrapped in plastic (glad wrap) to preserve open pore space.*
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	*Density was estimated for each block during the estimation process. Density input values, where available, came from the sample density database, which was matched to assayed samples. For assayed samples that did not have a density sample match, a derived density based on lithology was assigned to the assayed sample; this took into account the effect of lead grade for samples assaying ≥1% lead. For resource blocks within the weathered zone, a factor of 0.88 was applied. This was due to the limited number of weathered samples for density determination and based on the overall differential between the fresh and weathered density samples for the mineralised zone.*
Classification	***The basis for the classification of the Mineral Resources into varying confidence categories.***	*The Mineral Resources are classified as Inferred. The block model was restricted to -1000 RL (~1210m below surface). The classification reflects Red Metal's high confidence in the geological and mineralisation model of continuous lenses. The highly constrained mineralisation wireframes, widely spaced drilling, the inclusion of historical data, required a large search criteria in order to populate resource blocks between drill intersections.*
	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).	*Appropriate account has been taken of all relevant factors, including relative confidence in tonnage/grade estimates, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.*
	Whether the result appropriately reflects the Competent Person's view of the deposit.	*The reported Mineral Resources appropriately reflect the Competent Person's view of the deposit.*
Audits or reviews.	***The results of any audits or reviews of Mineral Resource estimates.***	*No formal audits or reviews have been undertaken to date.*
Discussion of relative accuracy/ confidence	***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.***	*The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated JORC Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits. Factors that could affect the relative accuracy and confidence of the estimate include:* • *The interpretation of the mineralised domains,* • *The highly constrained mineralisation domains, which restrict the modelling process, creates a block model with little or no included dilution* • *The continuity and inclusion of very high grade samples.* • *The inclusion of historical data, of which the veracity and accuracy cannot be determined* • *A low amount of density determinations and lack of assay QAQC in the historical data*
	The statement should specify whether it relates to global or local estimates, and,	*The estimates are local, in the sense that they are localised to model blocks of a size considered appropriate for local grade estimation and the*

Criteria	JORC 2012 Explanation	Commentary
	if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	*bedded, lensoid nature of the mineralisation.* *Tonnages relevant to detailed economic assessment analysis are those normally classified as Indicated and Measured Mineral Resources, of which there are none in this model. Thus this model's intent is for visualisation, exploration planning, technical assessment, and broad scoping study scenarios*
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	*No production data is available as the deposit is unmined.*

[Table 8] Maronan Project: Lead and silver drill intercepts and lens classifications used in the JORC 2012 inferred resources calculations applying a ≥1% lead lower cut-off grade.

Hole ID	Zone	Lens	Interval (m)	From (m)	To (m)	Lead %	Silver g/t
MND02	W	W-99	2	99	101	5.2	2
MND02	W	W2	6	104	110	6.3	14
MND03	W	W-1	1	109	110	4.1	6
MND03	W	W0	7	119	126	5.1	9
MND03	W	W1	4	129	133	6.8	61
MND03	W	W2	1	136	137	5.2	39
MND03	W	W2.1	1	143	144	4.4	161
MND04	W	W-4	11			4.5	70
MND04	W	W-3	2	119	121	4.1	37
MND07	W	W-4	2	135	137	2.0	4
MND07	W	W-3	2.4	147.6	150	7.0	96
MND07	W	W0	2.8	168.2	171	2.1	16
MND07	W	W1	4.3	173.7	178	2.4	18
MND07	W	W2	2.7	184.3	187	4.4	40
MND07	W	W?	4			4.2	27
MND10	W	W-4	9	241	250	3.4	8
MND10	W	W-3	2	254	256	2.4	11
MND10	W	W0	6	284	290	2.4	2
MND10	W	W2	2	297	299	2.6	3
MND10	W	W3	2			2.3	2
MND10	W	W?	6			3.5	25
MND12	W	W2	9	198	207	3.6	32
MND14	W	W0	9	211	220	4.3	3
MND14	W	W1	2	240	242	1.9	18
MND14	W	W2.2	2	254	256	4.9	3
MND15	W	W1	6	327	333	5.4	33
MND15	W	W2	6	335	341	3.0	24
MND21	W	W-4	8	402	410	2.3	30
MND21	W	W-3	18	418	436	3.2	2

Hole ID	Zone	Lens	Interval (m)	From (m)	To (m)	Lead %	Silver g/t
MND21	W	W0	26	446	472	4.9	5
MND24	W	W2?	2	472	474	1.1	11
MRN06001	W	W-4	7			6.0	52
MRN06001	W	W-3	15.4			2.4	63
MRN06001	W	W0?	2			10.7	123
MRN07001	W	W0	3.81	489.94	493.75	2.7	47
MRN07001	W	W1	3	496	499	1.9	37
MRN07001	W	W2	14.48	501	515.48	11.1	133
MRN07003B	W	W0	6.11	832.06	838.17	7.8	84
MRN07003B	W	W2	4.11	849.89	854	1.9	72
MRN07004A	W	W0	3.95	738.02	741.97	4.6	27
MRN07004A	W	W1	0.33	750.15	750.48	5.0	210
MRN07004A	W	W2	2	762	764	4.8	78
MRN08001	W	W-99	1.1			5.3	134
MRN08001	W	W-99	0.8			4.1	95
MRN11003A	W	W0	4.05	554.35	558.4	11.6	255
MRN11003A	W	W2	5.45	568.25	573.7	6.4	144
MRN12003	W	W0	6.2	1244.9	1251.1	6.4	36
MRN12003	W	W2	2.5	1263.5	1266	3.6	33
MRN12003B	W	W-1	2.65	1143.2	1145.85	1.9	28
MRN12003B	W	W0	2.95	1168.35	1171.3	10.1	154
MRN12003B	W	W2.1	3.53	1201	1204.53	7.2	59
MRN12004	W	W-4	10	781	791	1.7	28
MRN12004	W	W-3	4.4	799	803.4	2.9	6
MRN12004	W	W0	17.4	811	828.4	2.9	5
MRN12004B	W	W-4	8.3			2.8	28
MRN12004B	W	W-3	6.65	912	918.65	8.5	108
MRN12004B	W	W-2	2	939.2	941.2	6.0	46
MRN12004B	W	W-1	2.1	957.2	959.3	9.0	123
MRN12004B	W	W0	7.7	963.1	970.8	10.5	87
MRN12004B	W	W1	3.5	974	977.5	3.9	33
MRN12004B	W	W2	15.3	987.7	1003	6.6	28
MRN12004B	W	W3	2.85			11.3	80
MRN13001	W	W-5	2			3.2	52
MND01	E	E0	0.6	132.1	132.7	11.7	220
MND01	E	E1	6.4	139	145.4	2.1	57
MND02	E	E0	5	164	169	4.4	100
MND02	E	E1	2	177	179	4.0	93
MND02	E	E2	1.5	196	197.5	4.3	232
MND02	E	E3	1			1.4	52
MND04	E	E0	2	164	166	3.4	118
MND04	E	E1	7	176	183	3.2	47

Hole ID	Zone	Lens	Interval (m)	From (m)	To (m)	Lead %	Silver g/t
MND04	E	E2	2	191	193	2.2	41
MND07	E	E0	10.9	248.2	259.1	6.8	57
MND07	E	E1	4	274.2	278.2	6.1	97
MND07	E	E2.2	2	280.2	282.2	9.0	182
MND10	E	E-1	1	377	378	2.7	64
MND10	E	E0	1	381	382	4.8	100
MND10	E	E2.2	1	405	406	2.7	54
MND12	E	E0	5	263	268	3.5	70
MND12	E	E1	1	291	292	2.7	260
MND12	E	E2	2	319	321	2.1	75
MND14	E	E0	2	325	327	4.8	44
MND14	E	E1	2	352	354	4.4	122
MND14	E	E2	4	358	362	3.1	84
MND15	E	E0	4	411	415	3.3	39
MND15	E	E1	1	442	443	2.6	82
MND15	E	E2	2	460	462	2.9	104
MND21	E	E1	6	624	630	2.9	60
MND23	E	E2?	8	104	112	1.9	90
MND23	E	E3?	4			1.1	55
MND25	E	E2	5	203	208	3.5	94
MRN06001	E	E2	4	240	244	4.1	55
MRN06002	E	E2	9.93	405.15	415.08	5.0	135
MRN07001	E	E0	1	611	612	1.0	74
MRN07001	E	E1	2	636	638	1.4	64
MRN07001	E	E2	10	662	672	3.7	135
MRN07001	E	E2	0				
MRN07001	E	E3	3.2	713	716.2	2.1	78
MRN07002	E	E0	22	479	501	4.9	115
MRN07002	E	E1	4	510	514	3.3	153
MRN07003B	E	E0	2	941	943	2.3	145
MRN07003B	E	E2	4	974	978	1.3	46
MRN07004A	E	E0	3	820	823	2.7	90
MRN07004A	E	E1	4.66	827	831.66	2.5	222
MRN08003	E	E2	0.8	1225.8	1226.6	1.4	67
MRN11001	E	E-1	1.5	57.5	59	1.4	23
MRN11001	E	E0	7	72	79	2.6	18
MRN11003A	E	E0	3.3	636.5	639.8	4.2	97
MRN11003A	E	E1	4.15	656	660.15	1.5	62
MRN12003	E	E0	5.25	1297.6	1302.85	2.6	97
MRN12003B	E	E0	15.95	1227.8	1243.75	4.8	174
MRN12003B	E	E1	1.8	1262	1263.8	2.9	129
MRN12003B	E	E2	1.15	1272.9	1274.05	4.3	77

Hole ID	Zone	Lens	Interval (m)	From (m)	To (m)	Lead %	Silver g/t
MRN12004	E	E1	2.5	954	956.5	4.9	133
MRN12004B	E	E1	12.15	1210	1222.15	5.3	61
MRN12004B	E	E2	6.65	1228.3	1234.95	8.4	296
MRN13001	E	E2	2.55	967.45	970	4.9	80
MRN13002	E	E-3	2.3	459.6	461.9	9.8	277
MRN13002	E	E-2	13.7	483.3	497	7.9	230
MRN13002	E	E50	17.5	514	531.5	6.6	154
MRN13002	E	E0	15.1	548.9	564	5.8	134
MRN13002	E	E2N	7.3	577.7	585	2.4	53
MRN14002	E	E-99	3			1.9	46
MRN14002	E	E-3	2.1	601.3	603.4	27.2	303
MRN14002	E	E-2	17.45	608.4	625.85	6.1	46
MRN14002	E	E-5	3.45	639.45	642.9	4.8	51
MRN14002	E	E-1	8.4	645.2	653.6	6.4	69
MRN14002	E	E-1	0				
MRN14002	E	E50	26.9	662.5	689.4	2.7	18
MRN14002	E	E50	0				
MRN14002	E	E0	7.15	698.2	705.35	5.1	96
MRN14002	E	E2N	9.95	724.3	734.25	4.2	80
MRN14002	E	E99	2.8			3.5	72
MRN14002	E	E99	1.75			2.6	55
MRN14002	E	E99	1.9			3.2	55
MRN14003	E	E2	2.7	469.3	472	6.2	158
MRN14004	E	E-2	3.1	1241	1244.1	8.6	212
MRN14005	E	E-1	1	590.85	591.85	1.0	25
MRN14005	E	E0	4.45	597.4	601.85	3.4	59
MRN14005	E	E1	8.6	644.1	652.7	1.5	31
MRN14005	E	E2	2.3	655.85	658.15	7.8	96
MRN14006	E	E-99	0.8			6.5	89
MRN14006	E	E-3	0.8			3.4	59
MRN14006	E	E-2	1	445	446	1.5	11
MRN14006	E	E-1	2.65	456.55	459.2	4.1	57
MRN14006	E	E0	4.45	465.8	470.25	2.3	27
MRN14006	E	E1	3.4	472	475.4	4.1	56
MRN14006	E	E2	1.3	487	488.3	4.0	79
MRN14007	E	E50	10.1	579.4	589.5	8.5	213
MRN14007	E	E2	0.7	594	594.7	7.6	173
MRN14008	E	E-2	24.7	769.1	793.8	4.8	90
MRN14008	E	E50	3.1	799.4	802.5	3.5	123
MRN14008	E	E0	4	849	853	7.0	140
MRN14008	E	E2N	6.75	857.1	863.85	6.8	148

[Table 9] Maronan Project: Copper and gold drill intercepts and lens classifications used in the JORC 2012 inferred resources calculations applying a ≥0.5% copper lower cut-off grade.

Hole ID	Lens	Interval(m)	From (m)	To (m)	Copper %	Gold g/t
MND02	Z1	6	85	91	1.7	0.6
MND10	Z2	2	349	351	0.9	0.3
MND12	Z1	12	185	197	1.7	1.3
MND14	Z1	6	250	256	1.9	0.2
MND14	Z2	12	278	290	0.6	0.1
MND21	Z1	24	492	516	0.7	0.4
MND21	Z2	2	596	598	0.6	0.03
MND24	Z1	4	456	460	1.1	0.02
MND24	Z2	6	520	526	0.7	0.09
MRN07002	Z1	8	388	396	1.6	0.9
MRN12003B	Z1	0.8	1163.2	1164	2.8	0.07
MRN12004	Z1	5.4	843.6	849	1.6	0.02
MRN12004	Z2	13.8	866.2	880	2.2	1.7
MRN12004B	Z1	18.7	1054.3	1073	1.6	0.8
MRN12004B	Z2	3	1197	1200	0.8	0.1
MRN13001	Z1	74	864	938	0.9	0.6
MRN13001	Z2	3.1	956.7	959.8	1.5	0.8
MRN14004	Z1	6.3	1289.2	1295.5	0.9	0.04

[Table 10] Maronan Project: Summary collar survey file for all diamond core holes used in the JORC 2012 inferred resources. The number of specific gravity measurements (SG) and quality control samples (QA/QC) per hole are also listed.

Hole ID	Easting	Northing	Dip	Azimuth	Depth	RL	SG	QA/QC	Company
MND01	491492	7670656	-60	83	210	211.6		No record	Shell Minerals
MND02	491444	7670400	-60	83	268	210.4		No record	Shell Minerals
MND03	491419	7670196	-60	83	262.2	211.4		No record	Shell Minerals
MND04	491498	7670809	-60	83	213	210.8	2	No record	Shell Minerals
MND05	491573	7671020	-60	83	171	209		No record	Shell Minerals
MND06	491484	7671009	-60	83	255	210		No record	Shell Minerals
MND07	491404	7670798	-60	83	344.2	211.5		No record	Shell Minerals
MND08	490639	7670517	-60	108	218	212.6		No record	Shell Minerals
MND09	492181	7672696	-60	83	248.4	214		No record	Shell Minerals
MND10	491285	7670783	-60	83	453	211.6		No record	Shell Minerals
MND11	491711	7670229	-60	353	201	209		No record	Shell Minerals
MND12	491339	7670387	-60	83	351	211.6	5	No record	Shell Minerals
MND13	491237	7671537	-60	353	252	213		No record	Shell Minerals
MND14	491324	7670637	-70	83	401	211.9	4	No record	Shell Minerals
MND15	491183	7670353	-60	83	484	212.4		No record	Shell Minerals

Hole ID	Easting	Northing	Dip	Azimuth	Depth	RL	SG	QA/QC	Company
MND16B	491371	7670076	-60	83	327	210		No record	Shell Minerals
MND18	491559	7670968	-60	349	291	209.1	4	No record	MPI
MND19	491856	7670200	-60	349	230	204.4		No record	MPI
MND20	491532	7671186	-50	173	321	209.5		No record	MPI
MND21	491136	7670728	-70	85	750	211.8	5	10	Phelps Dodge
MND22	491681	7670423	-70	165	267.1	210		Not assayed	Phelps Dodge
MND23	491673	7670396	-70	190	700	210.2		15	Phelps Dodge
MND24	491188	7670818	-70	85	669	211.6	6	13	Phelps Dodge
MND25	491671	7670143	-70	0	333	208	3	25	Phelps Dodge
MND26	491791	7670353	-70	90	231	208.5		9	Phelps Dodge
MRN06001	491496	7670773	-60	25	459.9	211		Missing	BHPB
MRN06002	491412	7670092	-70	38	696.4	211		Missing	BHPB
MRN06003	491771	7669598	-60	355	480.4	210		Missing	BHPB
MRN06004	492071	7669973	-60	300	816.8	208		Missing	BHPB
MRN06005	491571	7669873	-60	22	521.2	208.6		Missing	BHPB
MRN07001	491021	7670323	-65	90	900.9	212.8	20	Missing	BHPB
MRN07002	491151	7670473	-65	90	714.9	212.6		Missing	BHPB
MRN07003B	490725	7670384	-72	90	1157.9	212.7		Missing	BHPB
MRN07004A	490886	7670583	-72	98	1002.9	212.2		Missing	BHPB
MRN08001	490330	7670363	-75	83	1338.8	213.2	74	8	BHPB
MRN08002	490909	7670182	-75	83	756.8	212.3		Missing	BHPB
MRN08002B	490906	7670183	-70	80	897.9	212.3		26	BHPB
MRN08003	490528	7670230	-65	83	1306.3	211	82	38	BHPB
MRN11001	491530	7670528	-55	90	150.3	211.6	48	6	Red Metal
MRN11003A	491000	7670423	-70	90	739	212.7	112	16	Red Metal
MRN12003	490648	7670527	-80	65	1469.5	212.6	140	5	Red Metal
MRN12003B	490648	7670527	-80	65	1317.9	212.6	84	4	Red Metal
MRN12004	490967	7670728	-80	57	1016.6	211.9	128	23	Red Metal
MRN12004B	490967	7670728	-80	57	1281.6	211.9	309	13	Red Metal
MRN13001	491246	7670935	-90	57	1196.9	211.2	236	14	Red Metal
MRN13002	491378	7671137	-90	50	885.6	210.5	165	17	Red Metal
MRN14001A	491227	7671127	-83	3	839	210.8		Not Assayed	Red Metal
MRN14002	491282	7671061	-90	47	805.4	210.9	164	14	Red Metal
MRN14003	491380	7671143	-80	75	525.8	210.5	112	11	Red Metal
MRN14004	491033	7671217	-88	75	1403.1	210.5	75	11	Red Metal
MRN14005	491319	7670929	-88	75	778	211.2	83	16	Red Metal
MRN14006	491319	7670930	-75	75	567.9	211.2	94	8	Red Metal
MRN14007	491378	7671137	-90	50	705.7	210.5	66	9	Red Metal
MRN14008	491226	7671125	-89	50	925.8	210.8	88	9	Red Metal