

## Substantial high-grade vanadium resource highlights Gabanintha's world-class potential

### *Outstanding results pave way for feasibility studies next year as part of strategy to supply high-tech battery market*

#### Key Points

- Measured and Indicated Mineral Resource of 24.7Mt at 0.8% vanadium pentoxide ( $V_2O_5$ ) at the Gabanintha project near Meekatharra in WA
- Result demonstrates Gabanintha has both critical mass and is one of the highest-grade vanadium deposits in Australia
- Resource supports Yellow Rock's plan to produce over 8,000tpa of vanadium at Gabanintha, representing 10% of global production
- The Mineral Resource includes a high grade zone of 11.3 Mt at 1.1% vanadium pentoxide ( $V_2O_5$ ) in Measured and Indicated Categories and points to strong potential for Gabanintha to enjoy low capital and operating costs
- Yellow Rock intends to supply both the booming vanadium battery market and the steel industry
- Feasibility studies, including detailed metallurgical programmes, to begin early next year

Yellow Rock Resources (ASX: YRR) is pleased to announce outstanding results from a revised Mineral Resource estimate, reported in compliance with the JORC Code 2012, for its Gabanintha project near Meekatharra in WA. It includes a Measured and Indicated Mineral Resource of 24.7 million tonnes grading 0.8 per cent  $V_2O_5$

The extremely high-grade nature of this resource, which contains 200,000 tonnes of  $V_2O_5$ , and includes a substantial high grade zone over 1% in grade, highlights the strong potential for Gabanintha to be a world-class vanadium project with critical mass and low costs.

The result helps underpin Yellow Rock's aim to produce 8,000 to 10,000 tonnes a year of vanadium, equal to 10 per cent of current total global vanadium output.

In light of this strong resource, Yellow Rock will begin economic studies early next year with a view to initiating a full definitive feasibility study by mid-2016. As part of this work, Yellow Rock will conduct detailed metallurgical studies to determine the optimum processing route for making Gabanintha vanadium suitable for sale to the high-tech battery industry.

Details of the resource estimation parameters and quality assurance criteria are shown at the end of this announcement in Appendix 1

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### ASX ANNOUNCEMENT

### Yellow Rock Resources Ltd

ASX: YRR  
FRA: JT7.F

ABN: 90 116 221 740

T: +61 8 9228 3333  
E: [info@yellowrock.com.au](mailto:info@yellowrock.com.au)  
W: [yellowrock.com.au](http://yellowrock.com.au)

#### Street Address:

129 Edward Street  
Perth WA 6000

#### Postal Address:

129 Edward Street  
Perth WA 6000

#### Projects:

Gabanintha Vanadium  
Gabanintha Gold, Copper  
Nowthanna Uranium  
Northern Territory Uranium

The Gabanintha Mineral Resource includes an extremely high-grade Measured Resource component of 7Mt at 1.09 per cent  $V_2O_5$  and an Indicated Resource of 4.3Mt at 1.07 per cent  $V_2O_5$ . These two components collectively contain 122,000t of  $V_2O_5$ .

The total Measured, Indicated and Inferred Mineral Resource in both low and high grade domains is 91.4Mt at 0.82 per cent  $V_2O_5$  and contains 750,000 tonnes of  $V_2O_5$ . This includes a high-grade zone of 56.8Mt at 1 per cent  $V_2O_5$  for 563,000 tonnes of  $V_2O_5$ .

There is extensive potential to grow the Gabanintha Resource further, with the mineralisation remaining open at depth and along strike.

However, given that the current resource is already sufficient to underpin a significant project, Yellow Rock intends to focus its efforts on the economic and metallurgical studies in the short term.

**Yellow Rock Chief Executive Vincent Algar said the size and the grade of the Mineral Resource showed Gabanintha was ideally placed to become a world-class vanadium project.**

**“This result gives us the foundations on which to build an outstanding project with low costs and strong margins,” Mr Algar said.**

**“We have the high grade, the close proximity to infrastructure and our timing in respect to supplying the vanadium battery market looks to be ideal.**

**“We will now look to confirm the economic and metallurgical aspects of Gabanintha while also pursuing our discussions with vanadium battery manufacturers.”**

Details of the current Mineral Resource estimate for Gabanintha are contained in this release. The information that refers to Mineral Resources in this statement was prepared and first disclosed under the JORC Code 2004. The additional drilling data has now been incorporated and modelled into a revised and updated resource estimate to comply with the JORC Code 2012. This was completed in October 2015 by independent consultants AMC and is reported in this ASX announcement.

#### **Activities focused on advancing Gabanintha towards feasibility**

With the release of the updated resource statement, the Company is now set to advance the project further. Key activities planned over the coming months include;

- Completion and reporting of a series of detailed metallurgical tests on sampling of mineralisation domains to allow definitive processing studies to commence.
- Commencement and completion of a Mining Study that will include pit optimization and a preliminary economic assessment and initial mine schedule
- Incorporation of Metallurgical test results and mining study results into a scoping study.
- Definition of parameters and commencement of a Feasibility Study.

The Company will also incorporate results from additional research it will be carrying out on Vanadium Electrolyte for use in Vanadium Redox Flow Batteries. The manufacture of electrolyte is a process that can be achieved as part of the processing of vanadium ore. It offers the Company an opportunity to value-add and become a part of the flow battery market cycle.

#### **2015 MINERAL RESOURCE ESTIMATION (JORC 2012)**

The updated Mineral Resource estimate completed and reported in compliance with the JORC Code 2012 standard for the project incorporated 97% of the historical drilling data including data from the Company's 2009 and 2015 RC and diamond drilling programs. This included 233 RC and 17 Diamond Core holes for 20,086 metres over a 12 kilometre of strike length at Gabanintha vanadium, titanium and iron deposit. Of these 19,431m were used in the grade estimate (see Figure 2).

The estimation was carried out by Australian Mining Consultants Pty Ltd, (AMC), resulting in the estimation of Measured, Indicated, and Inferred Mineral Resources. All mineralised domains, are reported above 0.3%  $V_2O_5$  for the low grade ore zones and above 0.7%  $V_2O_5$  within the high grade zone are reported in the Mineral Resource estimate (see Table 1) for a total resource of:

- **91.4 million tonnes at 0.82 %  $V_2O_5$  containing 750,000 tonnes of  $V_2O_5$  ;**
- **Containing a discrete high-grade zone of 56.8 million tonnes at 1.00%  $V_2O_5$  containing 563,000 tonnes of  $V_2O_5$ ;**
- **Discrete low-grade zones of 34.6 million tonnes at 0.53%  $V_2O_5$  containing 185,000 tonnes of  $V_2O_5$ .**

- **Combined Measured and Indicated Mineral Resources of 24.7 Million tonnes at 0.8 % V<sub>2</sub>O<sub>5</sub> in low and high grade domains containing 200,000t V<sub>2</sub>O<sub>5</sub>, suitable to underpin a long life, low cost, high grade feed, open-cut mining operation.**

Material	JORC Resource Class	Million Tonnes	In situ bulk density	V <sub>2</sub> O <sub>5</sub> %	Fe%	TiO <sub>2</sub> %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI%
High grade	Measured	7.0	3.73	1.09	43	12	10	8	3.4
	Indicated	4.3	3.29	1.07	41	12	12	9	4.6
	Inferred	45.5	3.67	0.97	42	11	12	8	2.8
<b>Subtotal</b>		<b>56.8</b>	<b>3.65</b>	<b>1.00</b>	<b>42</b>	<b>11</b>	<b>12</b>	<b>8</b>	<b>3.0</b>
Low grade	Indicated	13.4	2.39	0.55	24	7	27	19	8.7
	Inferred	21.1	2.48	0.53	25	7	27	17	7.0
<b>Subtotal</b>		<b>34.6</b>	<b>2.45</b>	<b>0.53</b>	<b>25</b>	<b>7</b>	<b>27</b>	<b>18</b>	<b>7.6</b>
<b>Subtotal</b>	<b>Measured</b>	7.0	3.73	1.09	43	12	10	8	3.4
<b>Subtotal</b>	<b>Indicated</b>	17.8	2.61	0.68	28	8	23	16	7.7
<b>Subtotal</b>	<b>Inferred</b>	66.7	3.29	0.83	37	10	17	11	4.1
<b>TOTAL</b>		<b>91.4</b>	<b>3.19</b>	<b>0.82</b>	<b>35</b>	<b>10</b>	<b>18</b>	<b>11</b>	<b>4.8</b>

Table 1 Gabanintha Project – Mineral Resource estimate using a 0.3% V<sub>2</sub>O<sub>5</sub> cutoff for low grade and 0.7% V<sub>2</sub>O<sub>5</sub> cutoff for high grade (total numbers may not add up due to rounding)

## Geology and Iron-Vanadium-Titanium Mineralisation

The high grade domain was modelled using wire-framing methods focusing on the discrete high grade layer at the base of the westerly dipping mineralised package as well as defining continuous low grade mineralisation above the main zone. The mineralised zones were modelled using a combination of geological and grade parameters, focused on continuity of zones between drill holes on section and between sections.

The average strike of the high grade domain is approximately 150°, north of 7015400 mN and swings around to approximately 140° to the south of 7015400 mN. The high grade and larger of the low grade domains generally dip 45 ° to 65 ° to the west, with the smaller and shallower (transported and lateritic) domains dipping 5 ° to 10 ° to the west. Figure 1 shows a schematic typical cross section at 7016320 mN, looking north. Cross Sections through the resource model showing drilling and grade interpolation are shown in Figures 3-6.

Ten mineralised domains were defined during the wireframe and statistical modelling process which were composed of;

- One high grade domain (split on oxide and fresh boundary).
- Seven low grade domains (split on oxide and fresh boundary).
- One laterite domain.
- One transported domain.

The mineral deposit consists of a basal massive magnetite zone (10m -15m in drilled thickness), overlain by a magnetite banded gabbro unit between 5 and 30m thick. This grades up into, or is dispersed with a disseminated magnetite gabbro unit. The Gabanintha deposit is a intrusive layered intrusive body smaller than, but displaying similar characteristics to the igneous Bushveld Complex in South Africa, host to some of the world's most significant platinum, vanadium and chromite

deposits. The deposit is similar to the Windimurra Vanadium Deposit and the Barambie vanadium-titanium deposit located 260km South and 150km Southeast of Gabanintha respectively.

Gabanintha differs from both of these deposits by the consistent presence along strike of the 10m thick basal massive magnetite zone and the higher overall grade of the Gabanintha Orebody<sup>1</sup>. (Gabanintha 1.00 % V<sub>2</sub>O<sub>5</sub> in high grade zone (0.82% V<sub>2</sub>O<sub>5</sub> overall), Windimurra 0.47% V<sub>2</sub>O<sub>5</sub> and Barambie<sup>2</sup> 0.82% V<sub>2</sub>O<sub>5</sub><sup>1</sup>). The grades being observed in new drilling and previously observed in historical drilling allow extremely favorable comparison with other high grade deposits globally. Namely Largo Resource (TSX:LGO) (1.48% V<sub>2</sub>O<sub>5</sub>) and Bushveld Minerals (AIM:BMN) (1.4% V<sub>2</sub>O<sub>5</sub>)

### Source Data

Drilling to date comprises historical drilling of 13,370m completed between 2000 and 2010 as well as the latest (2015) programme of 6,716m. The 2015 estimate of the Mineral Resource is based on all these drill holes identified in the table below<sup>2</sup> with the exclusion of 17 holes drilled by Intermin in 1998.

Company	Hole Number	Drill Type	Number of Holes	Metres
Pre-YRR to Oct 2007	GRC001 – 090	RC	90	6,867
YRR to July 2008	GRC091 – 147	RC	57	3,744
YRR to Dec 2009	GRC0148 – 158	RC	11	1,233
YRR to Dec 2009	GDH901 – 909	DD	9	1,526
<b>HISTORICAL</b>		<b>Sub-Total</b>	<b>167</b>	<b>13,370</b>
YRR to March 2015	GRC159 – 221	RC	63	5,955
YRR to March 2015	GDH 910 – 917	DD	8	761
<b>2015 PROGRAMME</b>		<b>Sub-Total</b>	<b>71</b>	<b>6,716</b>
<b>ALL DRILLING TO DATE</b>		<b>TOTAL</b>	<b>238</b>	<b>20,086</b>

Table 2 Drilling at Gabanintha

Note: The 2015 Mineral Resource Estimation excluded some older (pre-2007) RC holes (GRC001 to GRC017) due to uncertainty about assay quality assurance. This had minor impact on the wireframe estimations for volume and grade as more recent, better quality holes were drilled nearby.

- The resource update includes the results from the 2015 drilling program of 63 RC drill holes totalling 5,955m and 8 diamond drill holes totalling 761m of PQ core. See Figure 3.
- Cross-section interpretations and mineralisation outlines from geology, assay, magnetic susceptibility and density data.
- Mineralisation cut offs used for interpretation of low grade envelopes was nominally 0.4% V<sub>2</sub>O<sub>5</sub> and high grade is 1.0% V<sub>2</sub>O<sub>5</sub>. But mineralised zones can be better described as being interpreted based on a combination of grade and geological parameters, with the inclusion of occasional intervals below the cutoff grade to ensure domain continuity.
- Wireframes were constructed using Surpac and Datamine software. With grade estimation completed in Datamine Software
- Grade interpolation was completed using Ordinary Kriging for V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and Cr<sub>2</sub>O<sub>3</sub> and loss on ignition (LOI).

<sup>1</sup> Details of the Barambie Deposit grade from the NeoMetals website [www.neometals.com.au](http://www.neometals.com.au), Windimurra grade information from the Atlantic Limited releases on ASX website.

<sup>2</sup> Details of the current Mineral Resource estimate for Gabanintha are contained in this release. The information that refers to Mineral Resources in this announcement was prepared and first disclosed under the JORC Code 2004. The additional drilling data has now been incorporated and modelled into a revised and updated resource estimate to comply with the JORC Code 2012. This was completed by independent consultants AMC.

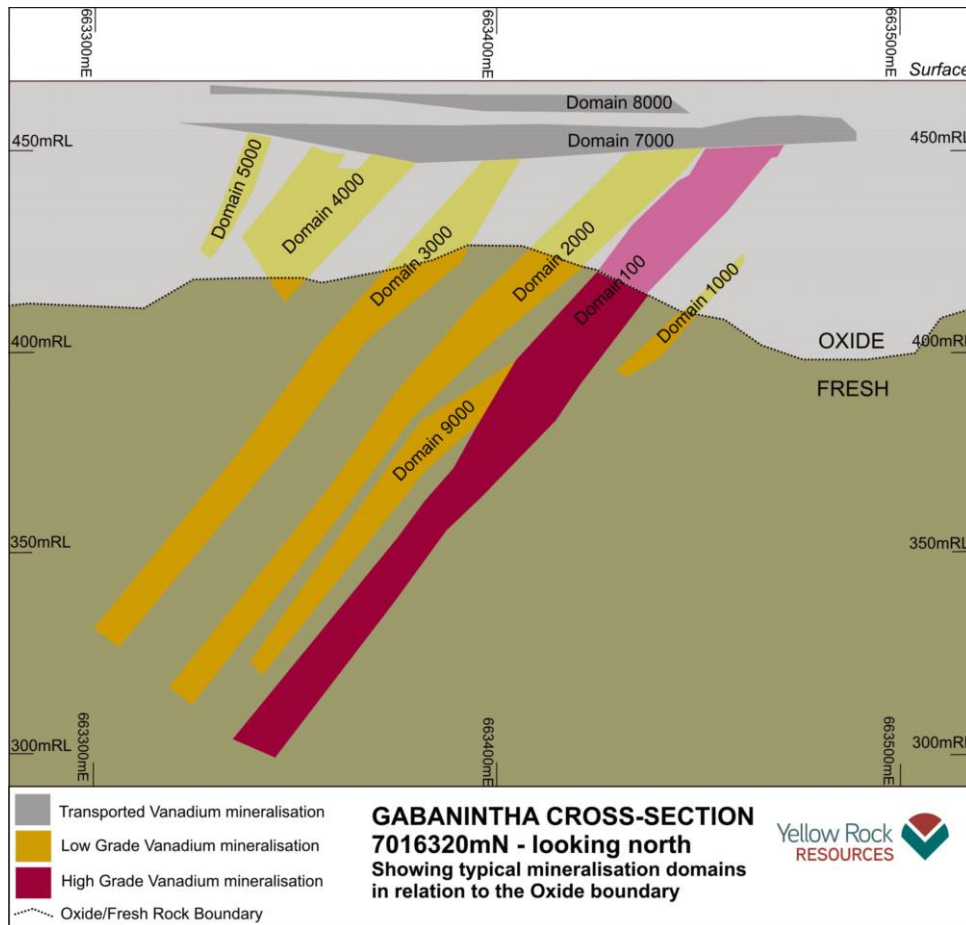


Figure 1 Image showing typical arrangement of mineralised domains used to define and estimate the Gabanintha Mineral Resource as at 7016230 mN

Details of the data used for the estimation, site inspection information, QAQC, density calculation and analysis and all other relevant checks completed are included in Appendix 1 (JORC Table 1, Sections 1 to 3)

### Summary of resources by oxidation state

Table 3 below shows a summary of the newly defined resource at Gabanintha by oxidation state with the following observations;

- Resource table based on OK method, using low grade cutoff of 0.3% V<sub>2</sub>O<sub>5</sub>, high grade cutoff of 0.7% V<sub>2</sub>O<sub>5</sub>
- Resource is based on mineralised domains, including high grade (domain 100), low grade (domain 2000-6000) and lateritic/transported mineralisation (domain 7000 and 8000)
- Resources are also subdivided as oxide (above base of complete oxidation) or fresh
- The oxidised weathering surface extends between 50 and 80 m below surface and the magnetite in the oxide zone is usually altered to Martite.
- The arrangement of domains is visible in Figure 1

Material	JORC Resource Class (Measured Indicated and Inferred)	Million Tonnes	In situ bulk density	V <sub>2</sub> O <sub>5</sub> %	Fe%	TiO <sub>2</sub> %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI%
High grade	Oxide	7.5	3.11	1.00	41	12	13	9	4.5
	Fresh	49.4	3.73	0.99	42	11	11	8	2.8
<b>Subtotal</b>		<b>56.8</b>	<b>3.65</b>	<b>1.00</b>	<b>42</b>	<b>11</b>	<b>12</b>	<b>8</b>	<b>3.0</b>
Low grade	Oxide	15.8	2.23	0.53	25	7	27	18	9.1
	Fresh	18.8	2.63	0.54	25	7	27	17	6.4
<b>Subtotal</b>		<b>34.6</b>	<b>2.45</b>	<b>0.53</b>	<b>25</b>	<b>7</b>	<b>27</b>	<b>18</b>	<b>7.6</b>
<b>Subtotal</b>		<b>23.2</b>	<b>2.51</b>	<b>0.68</b>	<b>30</b>	<b>9</b>	<b>23</b>	<b>15</b>	<b>7.6</b>
<b>Subtotal</b>		<b>68.2</b>	<b>3.43</b>	<b>0.87</b>	<b>37</b>	<b>10</b>	<b>16</b>	<b>10</b>	<b>3.8</b>
<b>TOTAL</b>		<b>91.4</b>	<b>3.19</b>	<b>0.82</b>	<b>35</b>	<b>10</b>	<b>18</b>	<b>11</b>	<b>4.8</b>

Table 3 Summary of Mineral Resource by Type and Weathering Profile. Resource table based on OK method, using Low Grade Cutoff of 0.3% V<sub>2</sub>O<sub>5</sub>, High Grade Cutoff of 0.7% V<sub>2</sub>O<sub>5</sub>. (total numbers may not add up due to rounding)

### Recommendations.

The Independent consultant, has made the following recommendations to the Company about the resource and has included a number of activities that will allow the company to improve the quality and quantity of resources at Gabanintha.

The company will take action on a number of these recommendations to further improve the quality of the resource base, thereby providing a strong basis for economic and feasibility studies commencing in 2016.

The recommendations are as follows;

- Additional density measurement work to be conducted on high grade and low grade ore zones using core samples. This will have the effect of improving the density estimate for the different mineralized zones, increasing confidence in parts of the resource further.
- Infill drilling in the current areas of Inferred Mineral Resource is recommended to increase them to Indicated or Measured category. This applies to both low grade and high grade domains. The degree to which additional drilling is needed will be based on the economic requirements of the project.
- The vanadium standard samples used in the QAQC process of the 2015 drilling program, and those that will be used in future programs should be validated by multiple labs to ensure its expected value. This determination will add further support to the quality of the QAQC reports which accompany the drilling and add confidence to the historical sampling processes.

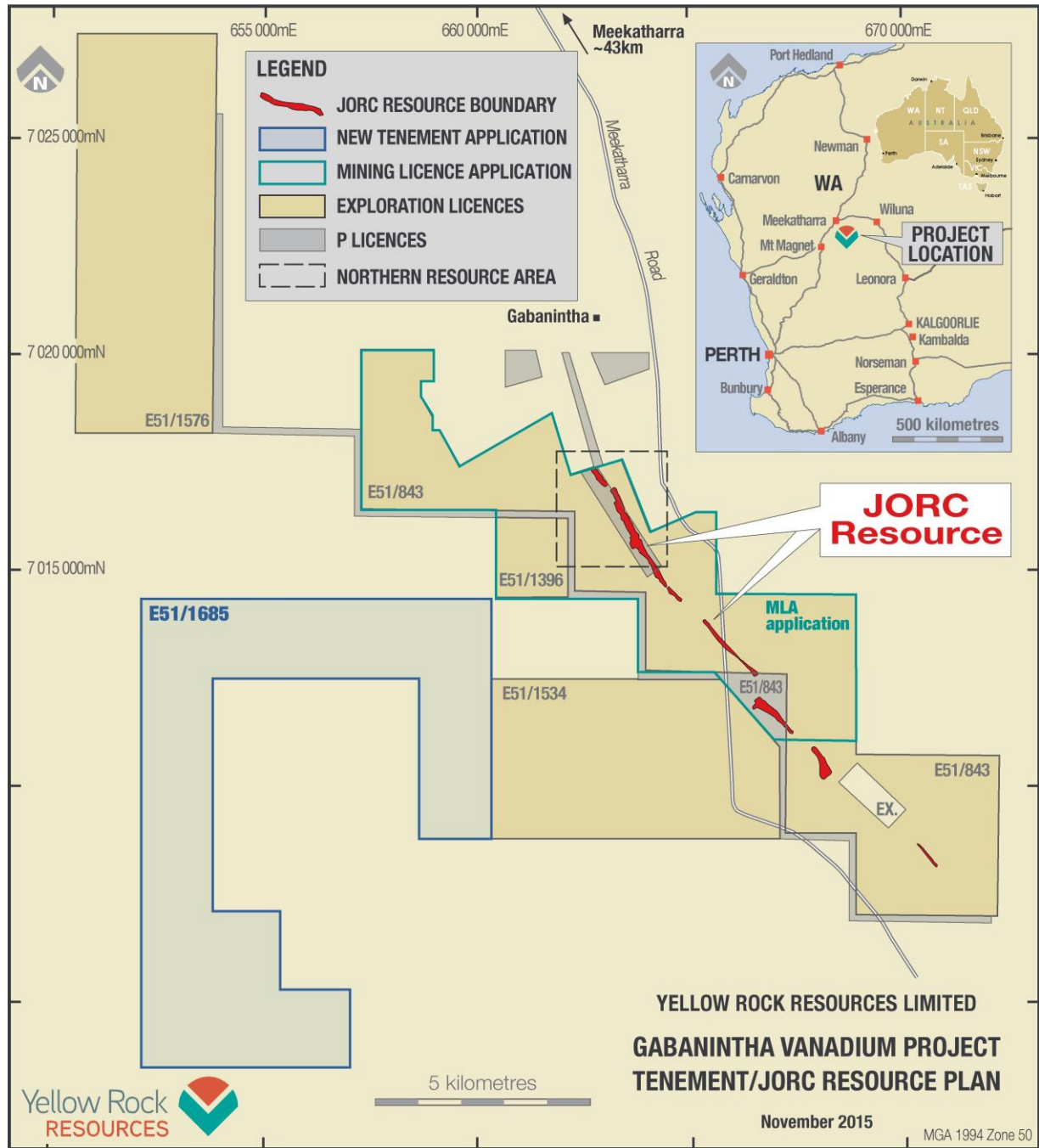


Figure 2 Location Diagram of the Gabanintha Project.

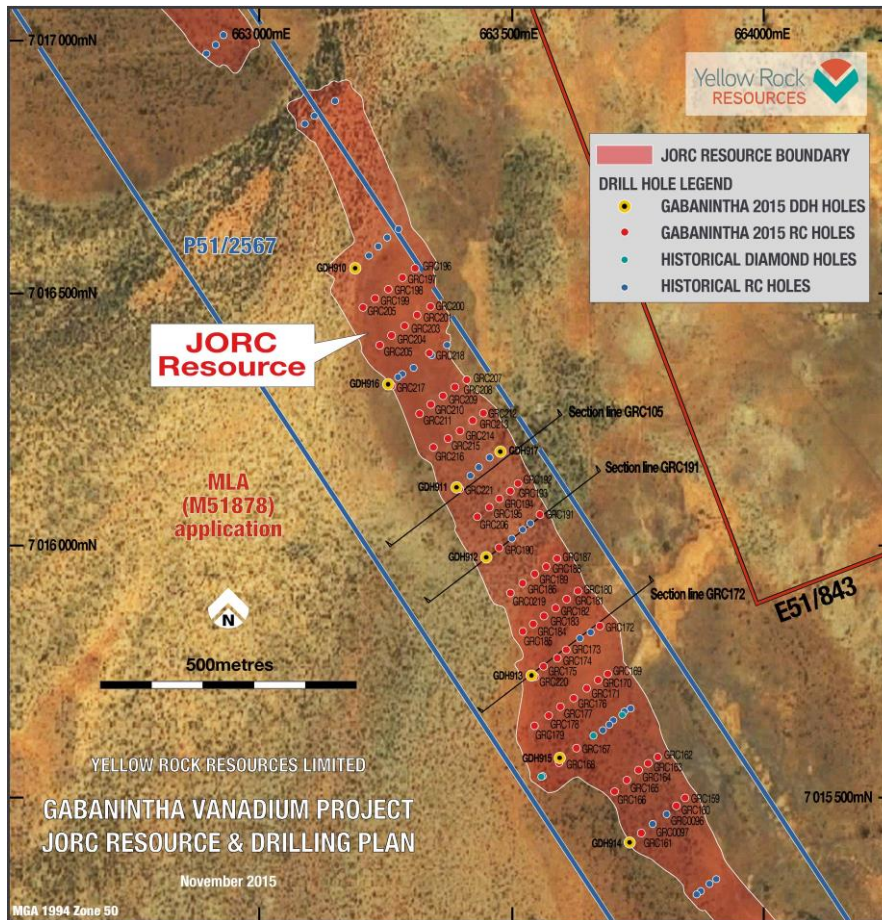


Figure 3 Collar Location Diagram and Ore Outlines at Gabanintha Project

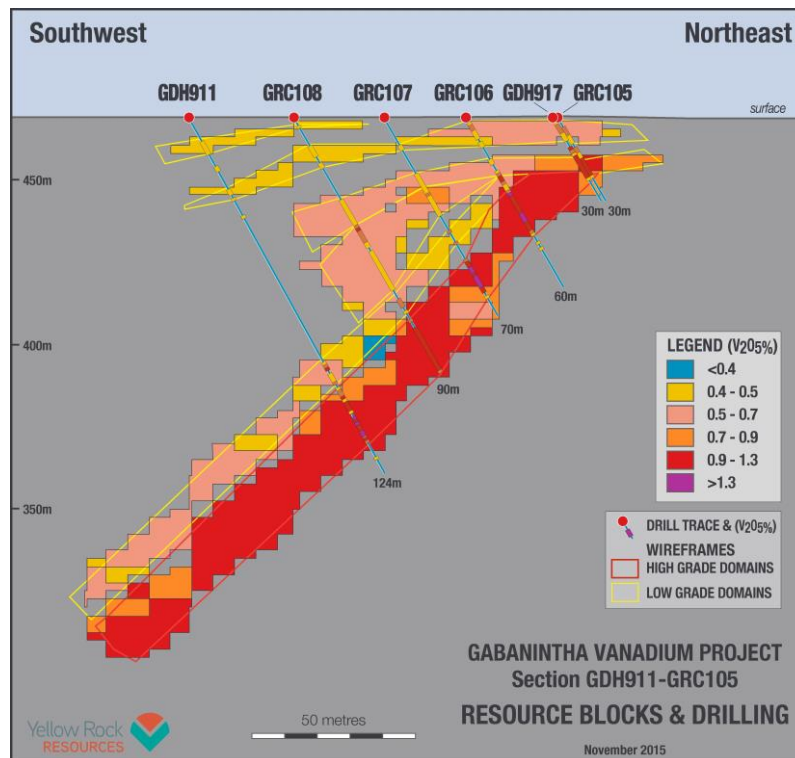


Figure 4 Cross Section through Resource Block Model showing block grades and drilling coverage (see Figure 2 for section location)



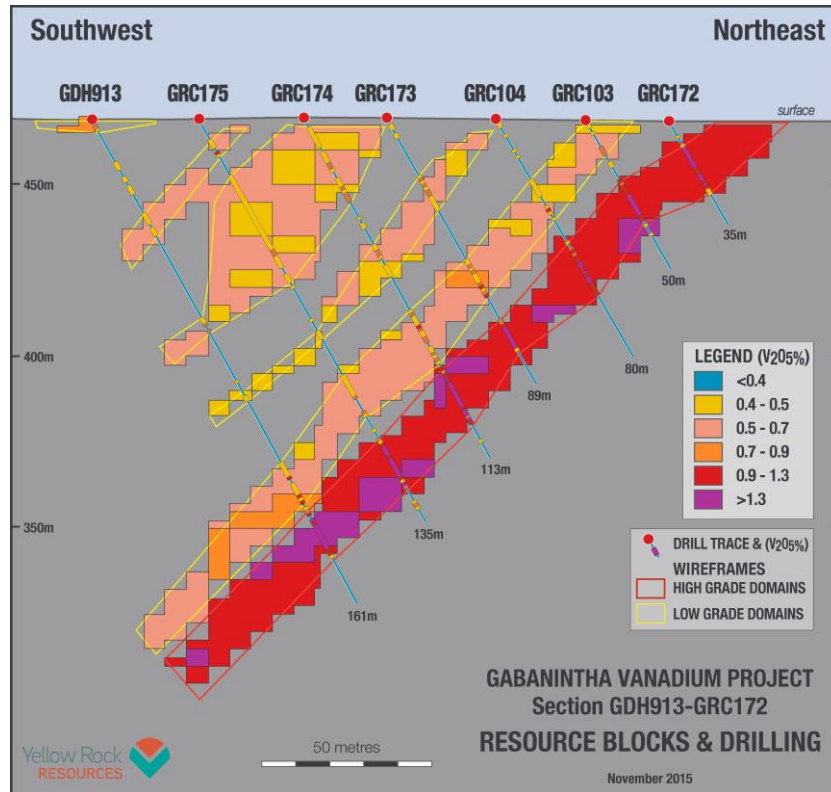


Figure 5 Cross Section through Resource Block Model showing block grades and drilling coverage (see Figure 2 for section location)

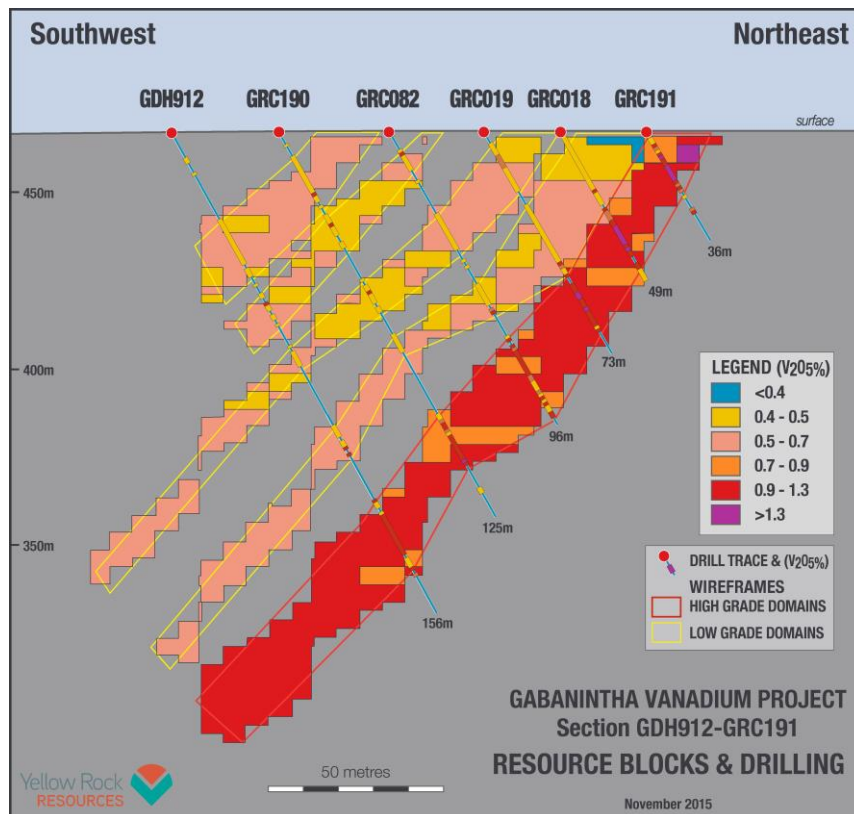


Figure 6 Cross Section through Resource Block Model showing block grades and drilling coverage (see Figure 2 for section location)

## Resource Parameters

Further details of the data used for the estimation, site inspection information, QAQC, density calculation and analysis and all other relevant checks completed are included in Appendix 1 (JORC Table 1, Sections 1 to 3) of this report.

### CUTOFFS

- The high-grade domain is defined by a nominal 1.0% V<sub>2</sub>O<sub>5</sub> grade cut-off, with occasional intervals between 0.7% and 1.0% selected to ensure domain continuity. The low-grade domain is based on a nominal 0.4% V<sub>2</sub>O<sub>5</sub> grade cut-off and is comprised of nine sub-domains. A similar approach is used as in the high-grade domain regarding selection of samples for sub-domain continuity, with samples below 0.4% V<sub>2</sub>O<sub>5</sub> being occasionally selected within the domain.
- The resource tables are reported at above 0.3% V<sub>2</sub>O<sub>5</sub> for the low grade domains and above 0.7% V<sub>2</sub>O<sub>5</sub> for the high grade domain. This is in line with the previous estimate reported in 2011.

### INTERPRETATION METHOD

- An additional 63 reverse circulation (RC) and 8 diamond drillholes (DD) were completed between March and May 2015 as part of the resource definition drilling programme.
- Using the additional sampling information, YRR reinterpreted the mineralisation at Gabanintha, particularly in the low-grade domain. The previous estimate interpreted the low-grade to be a large bulked domain, with little internal selectivity. The reinterpretation by YRR selected nine moderately to steeply dipping sub-domains, which strike sub-parallel to the high-grade domain.
- The average strike of the high-grade domain is approximately 150°, north of 7015400 mN and swings around to approximately 140° to the south of 7015400 mN. The high-grade and the larger low-grade domains generally dip 45° to 65° to the west, with the smaller domains 6000, 7000 and 8000 dipping 5° to 10° to the west.
- The high and low-grade domains are split by the base of complete oxidation surface wireframe, with the oxide portions coded as OXIDE=1 and the fresh portions coded as OXIDE=0.
- Variograms were completed for the seven estimated variables in the high-grade domain (DOMAIN 100) and the combined low-grade sub-domains (DOMAIN 1000 – 9000).
- Grade estimates are keyed on the combined oxide and domain codes, using a combined code labelled OXDOM. Domains 7000 and 8000 were interpreted to be shallow, flat lying alluvial material and are estimated separately.

### CLASSIFICATION

- The estimate is classified according to the guidelines of the 2012 JORC Code as Measured, Indicated and Inferred Mineral Resource. The classification has taken into account the relative confidence in tonnage and grade estimations, the reliability of the input data, AMC's confidence in the continuity of geology and grade values and the quality, quantity and distribution of the drillhole and supporting input data.
- In applying the classification, Measured Mineral Resource has generally been restricted to the fresh portion of the high-grade domain where the drillhole spacing is less than 80 mN to 100 mN. Indicated Mineral Resource is generally restricted to the oxide high-grade and oxide and fresh low-grade in the same area of relatively closely-spaced drilling. Inferred Mineral Resource has been restricted to the mineralization interpretation wireframe volumes. The classification applied relates to the global estimate of V<sub>2</sub>O<sub>5</sub> and at the reported cut-off grades only. At different V<sub>2</sub>O<sub>5</sub> grade cut-offs, the applied classification scheme may not be valid.

### GRADE INTERPOLATION

- AMC completed ordinary kriged estimates for V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub> and loss on ignition (LOI). AMC used the YRR interpretation to guide grade estimation into the block model for high-grade, low-grade and background domains

### BLOCK MODEL

- Grade is estimated into parent cells with dimensions of 40 mN, 10 mE and 5 mRL. Sub-celling is allowed to ensure accurate volume representation of the wireframed mineralization interpretation. All sub-cells are assigned the same grade as its parent.

### DENSITY CALCULATION

- AMC used a combination of density measurements from the supplied database to apply average density values by OXDOM code. The density determinations coded as "LAB" and as "BULK-D" were combined, as these were determined by the Archimedes method and were the most reliable readings of the in situ bulk density. The pycnometer determinations were compared with the combined bulk density values and porosity factors were applied to these values depending on the OXDOM code (high or low-grade, oxide or fresh). Average density

values for each oxide domain were then applied to the model based on the combined bulk density and factored pycnometer values.

## POTENTIAL CONTAMINANT ELEMENTS

In any complex metallic deposit there are likely to be elements that will alter the efficiency of processing or purity of a final product. Most of these elements have been tested for in the historical Gabanintha Drilling programs and are summarized below:

Name	Element	Type of Contaminant	Typical Steel making Maximum	Range at Gabanintha <sup>x</sup>	Comment
Aluminium	Al	Removable	5%	3 – 20%	As clays, will reduce efficiency and clog up furnaces
Calcium	Ca	Removable	1%	0.1 – 0.2%	Used as a precipitator to make slag, amounts critical.
Chromium	Cr	Residual	0.5%	0.04 – 1.85%	Hardener for some steels, not for others
Cobalt	Co	Removable	0.1%	0.01 – 0.02%	Can be an additive in steels
Copper	Cu	Residual	0.15%	0.01 – 0.03%	Can cause structural defects and inhomogeneity
Magnesium	Mg	Removable	2%	1.0 – 1.9%	Used as a precipitator to make slag, amounts critical
Manganese	Mn	Removable	1.5%	0.10 – 0.15%	Hardener and strengthener for some steels
Nickel	Ni	Residual	0.1%	0.04 – 0.06%	Can cause structural defects and inhomogeneity
Phosphorus	P	Removable	0.10%	0.01 -0.02%	Reduces steel quality and strength
Potassium	K	Removable	0.05%	0.01 – 0.02%	Can be a flux material
Silica	Si	Removable	9%	4.0 – 28%	Produces viscous slag and binds with metals. De-oxidises steel.
Sodium	Na	Removable	0.2%	0.08 – 0.1%	Can be a flux for slag making
Sulphur	S	Removable	0.07%	0.01 – 0.02%	Reduces furnace temperatures, can be explosive
Tin	Sn	Residual	0.05%	0.001 – 0.005%	Facilitates alloying, can be a coating
Zinc	Zn	Removable	0.1%	0.01 – 0.03	Resists corrosion, an alloying metal

Table 4. Summary of Potential contaminant and low quality metals contained in the current Gabanintha Drilling dataset <sup>x</sup> Based on raw assay data from the database above 0.8% V2O5.

The current resource has been estimated for the following non-ore elements, which exhibit the following average range of values for all domains in the resource model;

Metal or Oxide	Resource Range (Min to Max)	Potential effect
SiO <sub>2</sub>	10 % to 28 %	Can affect recovery of concentrate
Al <sub>2</sub> O <sub>3</sub>	8 % to 19 %	Can affect recovery of concentrate
Cr (ppm)	460ppm to 4819 ppm	Can affect recovery of product

Table 5. Range of average potential contaminant metals as modelled for all domains and oxidation states in the Gabanintha Mineral Resource.

YRR believes that the Gabanintha orebody has generally favourable chemistry for steel making and there appear to be few elements that may contaminate the processing of vanadium and titanium. The common contaminants expected at Gabanintha are Aluminium and Silica (from the interstitial clays in the low grade and oxide areas). The low grade ores also contain some Magnesium, but negligible quantities of the more deleterious Copper, Nickel, Tin, Phosphorus and Sulphur. Chromium will also be expected to act as a residual contaminant, although for some stainless steels up to 18% chromium is added. During the course of the feasibility studies, metallurgical beneficiation and processing options will be being considered for Gabanintha ore to allow for the potential economic recovery of the metals in the ore other than Vanadium, which at present is being considered as the primary economic metal.

## Vanadium Market Developments

Yellow Rock has continued to advance its opportunities in the Vanadium Redox Battery market by forming relationships with key players. The Company has formed a battery focused subsidiary, VSUN Pty Ltd, which will sell Vanadium Batteries on behalf of two European producers in the Australian Market. Opportunities will focus on businesses and off grid opportunities, but due to the scalability of VRB's, many other applications can be envisaged. These include applications such as domestic power, farm-production and Electric Vehicle charging stations.

The rapid acceleration in the development of renewable energy projects on a global scale is being accompanied by rapidly growing interest and need for grid storage technologies. The uptake of VRB technology along with other grid storage technologies could have a significant effect on the vanadium ( $V_2O_5$ ) market as the use of  $V_2O_5$  electrolyte is a large component (up to 50% of current cost) of the battery units.

The unique characteristics of VRB's, specifically their scalability, long lifespan cycles and the use of one battery element, make them a strong candidate to earn up to 30% of the growing energy storage market, which is expected to grow from a current 0.4GW to 40GW in just the next 7 years.

Yellow Rock, as a potential vanadium producer, recognises the importance of the steel markets, but is also actively seeking to link the use of its products to the rise of this globally significant use Vanadium Battery technology.

For further information, please contact:

**Vincent Algar, CEO**

**+61 8 9228 3333**

## Investor Coverage

Recent news on the Company activities can be found on the Yellow Rock Resources website: [www.yellowrock.com.au](http://www.yellowrock.com.au)

## About Yellow Rock Resources Limited

Yellow Rock is focused on developing its world-class Gabanintha vanadium resource to supply high-quality V<sub>2</sub>O<sub>5</sub> flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

Recent developments in vanadium redox technology for grid-scale energy storage have underpinned current work programs. These developments offer Yellow Rock an opportunity to gain first-mover advantage in the emerging VRB market.

The company is focused on defining the most economical start-up mining and product combination that reduces capital expense and maximizes value.

The company's Gabanintha resource is among the world's highest-grade vanadium deposits. Gabanintha is located in the Murchison Province 43kms south of the mining town of Meekatharra in Western Australia. The project consists of eight granted exploration licenses and one exploration license application in the Gabanintha Formation in the north of the Murchison granite-greenstone terrain of the Archaean Yilgarn Craton.

Mineralisation is associated with vanadiferous, titaniferous magnetite bands ranging in width from a few metres to 30m thick that outcrop at surface. There are two distinct zones of mineralization; a separate basal, massive, high grade zone and an upper disseminated zone with lower grade. The deposit is identified over 12km along strike, outcrops at surface and is largely continuous. Over 20,000m of drilling has been conducted on the deposit comprising reverse circulation (RC) holes and diamond (DD) holes. A Mineral Resource estimate, reported in compliance with the JORC Code 2012, was completed by AMC in October 2015 incorporating all the previous 2011 resource data as well as from the recent drilling.

The Company previously reported the results of a Concept Engineering Study (*see ASX announcement of 15 September 2014*) into the development of an open cut vanadium mine at Gabanintha that planned to mine, beneficiate and process ore to produce vanadium pentoxide flake and plans to complete a scoping study and commence feasibility studies in 2016.

#### **Competent Person Statement – Mineral Resource Database**

“The information in this statement that relates to Exploration Results and Mineral Resources database is based on information compiled by independent consulting geologist Brian Davis B.Sc (Hons), Dip.Ed. Mr Davis is a Member of The Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Brian Davis is employed by Geologica Pty Ltd and is the Non-Executive Chairman of Yellow Rock Resources Limited. Mr Davis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is undertaken 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. Davis consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears”.

The information that refers to Exploration Results, and Mineral Resources in this announcement was prepared and first disclosed under the JORC Code 2004 and then incorporated into a JORC 2012 Mineral Resource Estimation completed by AMC.

#### **Competent Person Statement – Mineral Resource Estimation**

“The information relating to the Gabanintha Mineral Resource estimate was compiled by Mr John Tyrrell. Mr Tyrrell is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and a full time employee of AMC (Australian Mining Consultants Pty Ltd). Mr Tyrrell has more than 25 years’ experience in the field of Mineral Resource Estimation. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and in resource model development to qualify as a Competent Person as defined in the 2012 JORC Code.

Mr. Tyrrell consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears”.

In undertaking the assignments referred to in this document, AMC acted as an independent party, has no interest in the outcome of the Gabanintha Project and has no business relationship with Yellow Rock Resources Ltd other than undertaking those individual technical consulting assignments as engaged, and being paid according to standard per diem rates with reimbursement for out-of-pocket expenses. Therefore AMC and the Competent Person believe there is no conflict of interest in undertaking the assignments which are the subject of the Mineral Resource estimate.

#### **Forward Looking Statements**

No representation or warranty is made as to the accuracy, completeness or reliability of the information contained in this release. Any forward looking statements in this presentation are prepared on the basis of a number of assumptions which may prove to be incorrect and the current intention, plans, expectations and beliefs about future events are subject to risks, uncertainties and other factors, many of which are outside Yellow Rock Resources Limited’s control. Important factors that could cause actual results to differ materially from the assumptions or expectations expressed or implied in this presentation include known and unknown risks. Because actual results could differ materially to the assumptions made and Yellow Rock Resources Limited’s current intention, plans, expectations and beliefs about the future, you are urged to view all forward looking statements contained in this release with caution. The release should not be relied upon as a recommendation or forecast by Yellow Rock Resources Limited. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

## 2015 Gabanintha Mineral Resource Estimate (2012 JORC Code – Table 1) Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized 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.	<p>The Gabanintha deposit was sampled using diamond core and reverse circulation (RC) percussion drilling from surface.</p> <p>A total of 233 RC holes and 17 diamond holes were drilled into the deposit. 23 of the 250 holes were either too far north or east of the main mineralisation trend, or excised due to being on another tenancy. Of the remaining 227 drillholes, 31 had assays but not geological logging and one had geological logging but no assays. The total metres of drilling for the available for use in the interpretation and grade estimation were 19,431m at the date of the resource estimate.</p> <p>The initial 17 RC drillholes were drilled by Intermin Resources NL (IRC) in 1998. These holes were not used in the 2015 estimate due to very long unequal sample lengths and a different grade profile from subsequent drilling. 31 RC drillholes were drilled by Greater Pacific NL in 2000 and the remaining holes for the project were drilled by Yellow Rock Resources Ltd. (YRR).</p> <p>All of the drilling sampled both high and low grade material and were sampled for assaying of a typical Iron Ore suite, including Vanadium and Titanium.</p> <p>Eight diamond drillholes and 63 RC drillholes were completed for the project since the previous estimate in 2011, for a total of 6,716m drilled.</p>
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<p>For the more recent drilling, in 2015,, the drillhole collars were originally set out using hand held GPS and on completion the collars were surveyed by survey contractors using high precision digital GPS. The earlier drilling programmes were retrospectively surveyed using DGPS using the remaining collar PVC pipe positions. Only a few of the very earliest drilled holes (1998) were not able to have their collars accurately surveyed, as they had been rehabilitated and their position was not completely clear. Downhole surveys were completed for all of the diamond holes, using gyro surveying equipment, as well as the RC holes drilled in 2015 (from GRC0160). All of the other RC holes were given a nominal -60 degree dip measurement. These older RC holes were almost all 120m or less in depth.</p> <p>Diamond core was quarter-core sampled at regular intervals (usually one metre) and constrained to geological boundaries where appropriate. Most of the RC drilling was sampled at one metre intervals, apart from the very earliest programme In 1998.</p>

Criteria	JORC Code Explanation	Commentary
	Aspects of the determination of mineralization that are Material to the Public Report.	<p>RC drilling samples were collected at one metre intervals and passed through a cone splitter to obtain a nominal 2-5kg sample at an approximate 10% split ratio. These split samples were collected in pre-numbered calico sample bags. The sample was dried, crushed and pulverised to produce a sub sample (~200g) for laboratory analysis using XRF and total LOI by thermo-gravimetric analysis.</p> <p>Diamond core was drilled predominantly at HQ size for the earlier drilling (2009), with the 2015 drilling at PQ3 size.</p> <p>Field duplicates, standards and blanks have been inserted into the sampling stream at a rate of nominally 1:25 for blanks, 1:11 for standards (including internal laboratory), 1:10 for field duplicates, 1:9 for lab checks and 1:74 for umpire assays.</p>
<b>Drilling techniques</b>	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	<p>Diamond drillholes account for 12% of the drill metres and comprises HQ and PQ3 sized core. RC drilling (generally 135 mm to 140 mm face-sampling hammer) accounts for the remaining 88% of the drilled metres. Two of the diamond holes have RC pre-collars (GDH911 &amp; GDH916), otherwise all holes are drilled from surface.</p> <p>No core orientation data has been recorded in the database.</p>
<b>Drill sample recovery</b>	Method of recording and assessing core and chip sample recoveries and results assessed.	<p>Diamond core recovery is measured when the core is recovered from the drill string. The length of core in the tray is compared with the expected drilled length and is recorded in the database.</p> <p>For the recent (2015) drilling, RC chip sample recovery was gauged by how much of the sample was returned from the cone splitter. This was recorded as good, fair, poor or no sample. The older drilling programmes used a different splitter, but still compared and recorded how much sample was returned for the drilled intervals. All of the RC sample bags (non-split portion) from the 2015 programme were weighed as an additional check on recovery.</p> <p>An experienced Yellow Rock geologist was present during drilling and any issues noticed were immediately rectified.</p> <p>No significant sample recovery issues were encountered in the RC drilling.</p>
	Measures taken to maximize sample recovery and ensure representative nature of the samples.	<p>Core depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. Recovered core was measured and compared against driller's blocks.</p> <p>RC chip samples were actively monitored by the YRR geologist whilst drilling.</p> <p>All drillholes are collared with PVC pipe for the first metre or two, to ensure the hole stays open and clean from debris.</p>



Criteria	JORC Code Explanation	Commentary
	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.	<p>No relationship between sample recovery and grade has been demonstrated.</p> <p>Two shallow diamond drillholes were drilled to twin RC have been completed to assess sample bias due to preferential loss/gain of fine/coarse material.</p> <p>Yellow Rock is a satisfied that the RC holes have taken a sufficiently representative sample of the mineralization and minimal loss of fines has occurred in the RC drilling resulting in minimal sample bias.</p>
<b>Logging</b>	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.	<p>All diamond core and RC chips were logged</p> <p>Diamond core was geologically logged using predefined lithological, mineralogical and physical characteristics (such as colour, weathering, fabric, texture) logging codes and the logged intervals were based on lithological intervals. RQD and recoveries were also recorded. Minimal structural measurements were recorded (bedding to core angle measurements) but have not yet been saved to the database.</p> <p>The logging was completed on site by the responsible geologist.</p> <p>All of the drilling was logged onto paper and was transferred to a Microsoft Access drillhole database by database specialist Mitchell River Group (MRG). The data was checked for accuracy when transferred to ensure that correct information was recorded.</p> <p>All core trays were photographed wet and dry.</p> <p>RC chips were logged generally on metre intervals, with the abundance/proportions of specific minerals, material types, lithologies, weathering and colour recorded.</p> <p>Physical hardness for RC holes is estimated by chip recovery and properties (friability, angularity) and in diamond holes by scratch testing.</p> <p>The recent drilling also had magnetic susceptibility recorded, with the first nine diamond holes (GDH901-GDH909) having readings taken on the core every 30 cm or so downhole. Holes GDH910 to GDH917 had readings every 50 cm and RC holes GRC0159 to GRC0221 had readings for every one metre green bag.</p> <p>All of the diamond core and RC samples have been logged to a level of detail to support Mineral Resource estimation to and classification to Measured Mineral Resource at best.</p>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging was both qualitative and quantitative in nature, with general lithology information recorded as qualitative and most mineralization records and geotechnical records being quantitative. Core photos were collected for all diamond drilling.
	The total length and percentage of the relevant intersections logged.	All recovered intervals were geologically logged, although 31 older drillholes (13% of the drilling) do not have geology recorded in the current database. This is mitigated by the fact that the holes from the first drill programme (IRC 1998) were not used in the 2015 Mineral Resource estimate, resulting in only 6% of drilling used in the estimate not having geological logging recorded,

Criteria	JORC Code Explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond core was cut in half and then the right hand side of the core (facing downhole) was halved again using a powered core saw. Quarter core samples were sent to the laboratories for assaying. Sample intervals were marked on the core by the responsible geologist considering lithological and structural features. No core was selected for duplicate analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RC drilling was sampled by use of an automatic cone splitter for the 2015 drilling programme; drilling was generally dry with a few damp samples. Older drilling programmes employed riffle splitters to produce the required sample splits for assaying. One in 40 RC samples was resampled as field duplicates for QAQC assaying.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation techniques employed for the diamond core samples follow standard industry best practice. All samples were crushed by jaw and Boyd crushers and split if required to produce a standardised ~3kg sample for pulverising. The 2015 programme RC chips were split to produce the same sized sample. All samples were pulverised to a nominal 90% passing 75 micron mesh and sub sampled for assaying and LOI determination tests. The remaining pulps are stored at a YRR facility and at the most recently used laboratory, Bureau Veritas (BV) in Canning Vale The 2015 sample preparation techniques are of industry standard and are appropriate for the sample types and proposed assaying methods. It is not clear from the documentation provided to AMC whether the sample preparation was the same for the older RC drilling programmes.
	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	Field duplicates, standards and blanks have been inserted into the sampling stream at a rate of nominally 1:25 for blanks, 1:11 for standards (including internal laboratory), 1:10 for field duplicates, 1:9 for lab checks and 1:74 for umpire assays. Also for the recent sampling at BV, 1 in 20 samples were tested to check for pulp grind size.
	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.	To ensure the samples collected are representative of the in-situ material, a 140mm RC hammer was used to collect one metre samples and either HQ or PQ3 sized core was taken from the diamond holes. Given that the mineralization at Gabanintha is either massive or disseminated magnetite/martite hosted vanadium, which shows good consistency in interpretation between sections and occurs as percentage values in the samples, AMC considers the sample sizes to be representative. Core is not split for duplicates, but RC samples are split at the collection stage to get representative (2-3kg) duplicate samples. The entire core sample and all the RC chips are crushed and /or mixed before splitting to smaller sub-samples for assaying.

Criteria	JORC Code Explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	As all of the variables being tested occur as moderate to high percentage values and generally have very low variances (apart from Cr <sub>2</sub> O <sub>3</sub> ), the chosen sample sizes are deemed appropriate
<b>Quality of assay data and laboratory tests</b>	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	<p>All samples for Gabanintha were assayed for the full iron ore suite by XRF (24 elements) and for total LOI by thermo-gravimetric technique. The method used is designed to measure the total amount of each element in the sample. Although the laboratories changed over time for different drilling programmes, the laboratory procedures all appear to be in line with industry standards and appropriate for iron ore deposits, and the commercial laboratories have been industry recognized and certified</p> <p>Samples are dried at 105°C in gas fired ovens for 18-24 hours before RC samples being split 50:50. One portion is retained for future testing, while the other is then crushed and pulverised. Sub-samples are collected to produce a 66g sample that is used to produce a fused bead for XRF based analysing and reporting.</p> <p>Certified and non-certified Reference Material standards, field duplicates and umpire laboratory analysis are used for quality control. The standards inserted by YRR were designed to test the V<sub>2</sub>O<sub>5</sub> grades around 1.94%, 0.95% and 0.47%. The internal laboratory standards used have varied grade ranges, but do cover these three grades as well.</p> <p>Most of the laboratory standards used show an apparent underestimation of V<sub>2</sub>O<sub>5</sub>, with the results plotting below the expected value lines; however the results generally fall within ± 5-10% ranges of the expected values. The other elements show no obvious material bias.</p> <p>Standards used by YRR generally showed good precision, falling within 3-5% of the mean value in any batch. The standards were not certified however, but compared with the internal laboratory standards (certified) they appear to show good accuracy as well.</p> <p>Field duplicate results from the recent drilling (2015) all fall within 10% of their original values.</p> <p>The BV XRF machine calibrations are checked once per shift using calibration beads made using exact weights and they performed repeat analyses of sample pulps at a rate of 1:20 (5% of all samples). The lab repeats compare very closely with the original analysis for all elements.</p>

Criteria	JORC Code Explanation	Commentary
	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.	The only geophysical readings taken for the Gabanintha core and RC samples and recorded in the database were magnetic susceptibility. This was undertaken using an RT1 hand magnetic susceptibility meter (CorMaGeo/Fugro) with a sensitivity of $1 \times 10^{-5}$ (dimensionless units). The first nine diamond holes (GDH901 – GDH909) were sampled at approximately 0.3m intervals, the last eight (GDH910 – GDH917) at 0.5m intervals and the RC chip bags for every green bagged sample (one metre). Four completed drillholes were tested by acoustic televiewer (GDH911, 912, 914 and 915) as a prequel to geotechnical logging. At the time of the estimate the results were not in the database.
	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.	QAQC results from both the primary and secondary assay laboratories show no material issues with the main variables of interest for the recent assaying programmes.
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	Diamond drill core photographs have been reviewed for the recorded sample intervals. AMC Senior Geologist, John Tyrrell, visited the Gabanintha project site and the BV core shed and assay laboratories in September 2015. Whilst on site, the drillhole collars and remaining RC chip samples were inspected. All of the core was inspected in the BV facilities in Perth and selected sections of drillholes were examined in detail in conjunction with the geological logging and assaying.
	The use of twinned holes.	Two diamond drillholes (GDH915 and GDH917) were drilled to twin the RC drillholes GRC0105 and GRC0162 respectively. The results show excellent reproducibility in both geology and assayed grade for each pair.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All primary geological data has been collected using paper logs and transferred into Excel spreadsheets and ultimately an Access Database. The data was checked on transfer by the database administrator, MRG. Assay results were returned from the laboratories as electronic data (Excel spreadsheets and PDF files). Survey and collar location data was received as electronic data and stored as spreadsheet files. All of the primary data has been collated and imported into a Microsoft Access relational database, keyed on borehole identifiers and assay sample numbers. The data was verified as it was entered and checked by the database administrator and YRR personnel.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data, apart from resetting below detection limit values to half positive detection values.

Criteria	JORC Code Explanation	Commentary
<b>Location of data points</b>	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	For the recent drilling, all of the collars were set out using a Trimble real-time kinematic (RTK) GPS system. After completion of drilling all of the collars were re-surveyed using the same tool.  Historical drillholes were surveyed with RTK GPS and DGPS from 2008 to 2015, using the remaining visible collar location positions where necessary. Only a five of the early drillholes, drilled prior to 2000, had no obvious collar position when surveyed and a best estimate of their position was used based on planned position data.
	Specification of the grid system used.	The grid projection used for Gabanintha is MGA_GDA94, Zone 50. All reported coordinates are referenced to this grid.
	Quality and adequacy of topographic control.	A topographic surface has been generated from data collected by Fugro Airborne Surveys Pty Ltd, flown in September 2011. It is based on a 2m vertical contour interval resolution, which is in turn derived from a 5m digital terrain model (DTM).
<b>Data spacing and distribution</b>	Data spacing for reporting of Exploration Results.	The better drilled areas of the deposit now have approximately 80m to 100m spacing by northing and 25m to 30m spacing by easting. Occasionally these spacings are closer for some pairs of drillholes. Outside of the main area of relatively close spaced drilling (approximately 7015400mN to 7016600mN), the drillhole spacing increases to several hundred metres in the northing direction, but maintains roughly the same easting separation as the better drilled area.
	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 degree of geological and grade continuity demonstrated by the data density is sufficient to support the definition of Mineral Resources and the associated classifications applied to the Mineral Resource estimate as defined under the 2012 JORC Code. Variography studies have shown very little variance in the data for most of the estimated variables and primary ranges in the order of several hundred metres.
	Whether sample compositing has been applied.	All assay results have been composited to one metre lengths after being for use in the Mineral Resource estimate. This was by far the most common sample interval for the diamond drillhole and RC drillhole data
<b>Orientation of data in relation to geological structure</b>	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The grid rotation is approximately 45° to 50° magnetic to the west, with the holes dipping approximately 60° to the east. The drill fences are arranged along the average strike of the high grade mineralised horizon, which strikes approximately 310° to 315° magnetic south of a line at 7015000mN and approximately 330° magnetic north of that line. The mineralization is interpreted to be moderate to steeply dipping, approximately tabular, with stratiform bedding striking approximately north-south and dipping to the west. The drilling is exclusively conducted perpendicular to the strike of the main mineralisation trend and dipping approximately 60° to the east, producing approximate true thickness sample intervals through the mineralization.

Criteria	JORC Code Explanation	Commentary
	If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The orientation of drilling with respect to mineralization is not expected to introduce any sampling bias. Drillholes intersect the mineralization at an angle of approximately 90 degrees.
<b>Sample security</b>	The measures taken to ensure sample security.	Samples were collected onsite under supervision of a responsible geologist. The samples were then stored in lidded core trays and closed with straps before being transported by road to the BV core shed in Perth (or other laboratories for the historical data). RC chip samples were transported in bulk bags to the assay laboratory and the remaining green bags are either still at site or stored in Perth. RC and core samples were transported using only registered public transport companies. Sample despatch sheets were compared against received samples and any discrepancies reported and corrected.
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	A review of the sampling techniques and data was completed by Mining Assets Pty Ltd (MASS) and Schwann Consulting Pty Ltd (Schwann) in 2008 and by CSA in 2011. Neither found any material error. AMC also reviewed the data in the course of preparing this Mineral Resource estimate in 2015. AMC also conducted Chain of Evidence testing on a selection of drillholes from the database, but has not audited the Gabanintha database.  AMC concludes that the data integrity and consistency of the drillhole database shows sufficient quality to support resource estimation.

## Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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.	<p>Exploration Prospects are located wholly within Lease P51/2567 and E51/843. The tenements are 100% owned by Yellow Rock.</p> <p>The tenements lie within the Yugunga Nya Native Title Claim (WC1999/046). A Heritage survey was undertaken prior to commencing drilling which only located isolated artefacts but no archaeological sites <i>per se</i>.</p> <p>Mining Lease Application M51/878 covering most of E51/1843 and the vanadium project is currently under consideration by the Department of Mines and Petroleum.</p> <p>AMC is unaware of any other joint venture, native title, environmental, national park or other ownership agreements on the lease area.</p>
	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.	At the time of reporting, there are no known impediments to obtaining a licence to operate in the area and the tenement is in good standing.

Criteria	JORC Code Explanation	Commentary
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	<p>The Gabanintha deposit was identified in the 1960's by Mangore P/L and investigated with shallow drilling, surface sampling and mapping.</p> <p>In 1998, Drilling by Intermin Resources confirmed the down dip extent and strike continuation under cover between outcrops of the vanadium bearing horizons.</p> <p>Additional RC and initial diamond drilling was conducted by Greater Pacific NL and then Yellow Rock Resources up until 2015.</p> <p>Previous Mineral Resource estimates have been completed for the deposit in 2001 (Mineral Engineering Technical Services Pty Ltd (METS) and Bryan Smith Geosciences Pty Ltd. (BSG)), 2007 (Schwann), 2008 (MASS &amp; Schwann) and 2011 (CSA).</p>
<b>Geology</b>	Deposit type, geological setting and style of mineralization.	<p>The Gabanintha Project is located approximately 40kms south of Meekatharra in Western Australia and approximately 100kms along strike (north) of the Windimurra Vanadium Mine.</p> <p>The mineralisation is hosted in the same geological unit as Windimurra, which is part of the northern Murchison granite greenstone terrane in the north west Yilgarn Craton. The project lies within the Gabanintha and Porlell Archaean greenstone sequence oriented approximately NW-SE and is adjacent to the Meekatharra greenstone belt.</p> <p>Locally the mineralization is massive or bands of disseminated vanadiferous titanomagnetite hosted within the gabbro. The mineralized package dips moderately to steeply to the west and is capped by Archaean acid volcanics and metasediments. The footwall is a talc carbonate altered ultramafic unit.</p> <p>The host sequence is disrupted by late stage dolerite and granite dykes and occasional east and east southwest trending faults with apparent minor offsets. The mineralization ranges in thickness from several metres to up to 20 to 30m in thickness.</p> <p>The oxidized weathering surface extends 50 to 80m below surface and the magnetite in the oxide zone is usually altered to Martite.</p>
<b>Drillhole Information</b>	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</p> <ul style="list-style-type: none"> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul>	No exploration results have been reported in this release, therefore there is no drillhole information to report. This section is not relevant to reporting Mineral Resources.
<b>Data aggregation methods</b>	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.	No exploration results have been reported in this release, therefore there is no drillhole intercepts to report. This section is not relevant to reporting Mineral Resources.



Criteria	JORC Code Explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No exploration results have been reported in this release, therefore there is no drillhole intercepts to report. This section is not relevant to reporting Mineral Resources.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No exploration results have been reported in this release, therefore there is no drillhole intercepts to report. This section is not relevant to reporting Mineral Resources.
<b>Relationship between mineralization widths and intercept lengths</b>	If the geometry of the mineralization with respect to the drillhole angle is known, its nature should be reported.	No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
<b>Diagrams</b>	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 drillhole collar locations and appropriate sectional views.	No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
<b>Balanced reporting</b>	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.	No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
<b>Other substantive exploration data</b>	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.	No exploration results have been reported in this release. This section is not relevant to reporting Mineral Resources.
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	The decision as to the necessity for further exploration at Gabanintha is pending completion of mining technical studies on the currently available resource.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The decision as to the necessity for further exploration at Gabanintha is pending completion of mining technical studies on the currently available resource.

### Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code Explanation	Commentary
<b>Database integrity</b>	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.	<p>All of the drilling was logged onto paper and has been transferred to a digital form and loaded into a Microsoft Access drillhole database. Logging information was reviewed by the responsible geologist and database administrator prior to final load into the database. All assay results were received as digital files, as well as the collar and survey data. This data was transferred directly from the received files into the database. All other data collected for Gabanintha is recorded as Excel spreadsheets prior to loading into Access.</p> <p>The data has been periodically checked by YRR personnel, the database administrator as well as the personnel involved in four previous Mineral Resource estimates for the project.</p>
	Data validation procedures used.	<p>The data validation was initially completed by the responsible geologist logging the core and marking up the drillhole for assaying. The paper geological logs were transferred to Excel spreadsheets and compared with the originals for error. Assay dispatch sheets were compared with the record of samples received by the assay laboratories.</p> <p>Currently, all of the drillhole data has been collected and input into a Microsoft Access database, keyed on drillhole identifier (BHID) and assay sample number. All of the data was verified at the time of import to Access and any error was corrected.</p> <p>Both internal (YRR) and external (Schwann, MASS, CSA and AMC) validations were/are completed when data was loaded into spatial software for geological interpretation and resource estimation. AMC checked the data for overlapping intervals, missing samples, FROM values greater than TO values, missing stratigraphy or rock type codes, downhole survey deviations of <math>\pm 10^\circ</math> in azimuth and <math>\pm 5^\circ</math> in dip, assay values greater than or less than expected values and several other possible error types when loading the data into CAE Studio 3 (Datamine) software. Furthermore each assay record was examined and mineral resource intervals were picked by the Competent Person.</p> <p>QAQC data and reports are normally also checked by the database administrator, MRG. MASS &amp; Schwann and CSA both reported on the available QAQC data for Gabanintha.</p>

Criteria	JORC Code Explanation	Commentary
<b>Site visits</b>	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	<p>AMC Senior Geologist John Tyrrell visited the Gabanintha project site in late 2015 and inspected the outcrop and drillhole locations. Many of the drill locations had green bags with excess RC chip samples present and these were also examined.</p> <p>Although no drilling or sampling was occurring during the site visit, the geology, sampling, sample preparation and transport, data collection and storage procedures were all discussed and reviewed with the responsible geologist for the 2015 drilling whilst at the project site and during a subsequent visit to the BV laboratory and core shed in Perth. AMC used this knowledge to aid in the preparation of this Mineral Resource Estimate.</p>
	If no site visits have been undertaken indicate why this is the case.	
<b>Geological interpretation</b>	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	<p>The Gabanintha Vanadium mineralization lies along strike from the Windimurra Vanadium Mine and the oxidised portion of the high-grade massive magnetite/martite mineralization outcrops for almost 14km in the company held lease area. Detailed mapping and mineralogical studies have been completed by YRR personnel and contracted specialists between 2000 and 2015, as well as four separate drilling programmes to test the mineralization and continuity of the structures. These data and the relatively closely-spaced drilling has led to a good understanding of the mineralization controls.</p> <p>The mineralization is hosted within altered gabbros and is easy to visually identify by the magnetite/martite content. The main high grade unit shows consistent thickness and grade along strike and down dip and has a clearly defined sharp boundary. The lower grade disseminated bands also show good continuity, but their boundaries are occasionally less easy to identify visually as they are more diffuse over a metre or so.</p>
	Nature of the data used and of any assumptions made.	No assumptions are made regarding the input data.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	<p>Neither alternative interpretations nor estimations were undertaken by AMC. However previous estimates have interpreted the low grade mineralisation as a more massive unit, rather than the banded nature of the current interpretation. The impact of the current interpretation as compared to the previous bulk low grade interpretation would be less volume of low grade mineralisation and a higher overall V<sub>2</sub>O<sub>5</sub> grade for that mineralisation in the current estimate.</p>

Criteria	JORC Code Explanation	Commentary								
	<p>The use of geology in guiding and controlling Mineral Resource estimation.</p>	<p>Geological observation has underpinned the resource estimation and geological model. The high grade mineralization domain has a clear and sharp boundary and has been tightly constrained by the interpreted wireframe shapes. The low grade mineralization is also constrained within wireframes, which are defined and guided by visual (from core) and grade boundaries from assay results. The low grade mineralization has been defined as nine sub-domains, which strike sub-parallel to the high grade domain. The resource estimate is constrained by these wireframes.</p> <p>The extents of the geological model were constrained by drilling. Geological boundaries had only minimal extrapolation beyond drilling in line with the resource classifications of indicated or inferred.</p> <p>The domain coding for the Gabanintha project is as follows:</p> <table border="1" data-bbox="1198 703 1792 826"> <thead> <tr> <th>Lithology/Mineralization</th> <th>Numeric Domain Code</th> </tr> </thead> <tbody> <tr> <td>High Grade</td> <td>100</td> </tr> <tr> <td>Low Grade 1 - 9</td> <td>1000 to 11000</td> </tr> <tr> <td>Background Gabbro</td> <td>99999</td> </tr> </tbody> </table> <p>The Mineral Resource estimate treated the high grade and low grade as separate domains and also differentiated between the oxide and fresh portions of the deposit with a separate OXIDE code set to 1 for oxide material and 0 for fresh material.</p> <p>The data was also flagged with a code for alluvial material and two low grade domains, 7000 and 8000, were treated as alluvial material and estimated separately from the low and high grade mineralization.</p>	Lithology/Mineralization	Numeric Domain Code	High Grade	100	Low Grade 1 - 9	1000 to 11000	Background Gabbro	99999
Lithology/Mineralization	Numeric Domain Code									
High Grade	100									
Low Grade 1 - 9	1000 to 11000									
Background Gabbro	99999									
	<p>The factors affecting continuity both of grade and geology.</p>	<p>Key factors that are likely to affect the continuity of grade are:</p> <ul style="list-style-type: none"> <li>• The thickness and presence of the high grade massive magnetite/martite unit, which to date has been very consistent in both structural continuity and grade continuity.</li> <li>• The thickness and presence of the low grade banded and disseminated mineralization along strike and down dip. The low grade sub-domains are less consistent in their thickness along strike and down dip with more pinching and swelling than for the high grade domain.</li> <li>• Faulting occurs with offsets that are at a scale that is too small to be defined at the current drilling.</li> </ul>								

Criteria	JORC Code Explanation	Commentary
<b>Dimensions</b>	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.	<p>The massive magnetite/martite unit strikes approximately 14 km, is stratiform and ranges in thickness from less than 10m to over 20m true thickness. The low grade mineralized units are sub-parallel to the high grade zone, and also vary in thickness from less than 10m to over 20m. All of the units dip moderately to steeply towards the west, with the exception of two predominantly alluvial units (domains 7000 and 8000) which are flat lying.</p> <p>All units outcrop at surface, but the low grade units are difficult to locate as they are more weathered and have a less prominent surface expression than the high grade unit. The high and low grade units are currently interpreted to have a depth extent of approximately 200m below surface. Mineralisation is currently open along strike and at depth.</p>
<b>Estimation and modelling techniques</b>	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.	<p>Grade estimation was completed using ordinary kriging (OK) for the Mineral Resource estimate. Datamine software was used to estimate grades for V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub> and loss on ignition (LOI) using parameters derived from statistical and variography studies. The majority of the variables estimated have coefficients of variation of less than 1.0, with Cr<sub>2</sub>O<sub>3</sub> being the exception.</p> <p>Drillhole spacing varies from approximately 80 m to 100 m along strike by 25 m to 30 m down dip, to 500 m along by 25 m to 30 m down dip. Drillhole sample data was flagged with numeric domain codes unique to each mineralization domain. Sample data was composited to 1 m downhole length and composites were terminated by a change in domain or oxidation state coding.</p> <p>No grade top cuts were applied to any of the estimated variables as statistical studies showed that there were no extreme outliers present within any of the domain groupings.</p> <p>Grade was estimated into three separate mineralization domains, high grade, low grade and low grade alluvial. Downhole variography and directional variography were performed for all estimated variables for the high grade domain and the grouped low grade domains. Grade continuity varied from several to tens of metres in the across strike and down-dip directions, to hundreds of metres in the along strike directions. All estimated variables in the mineralization domains had major search axis lengths of 200m, with down dip searches set to 100 m and across strike searches of 30 m.</p>

Criteria	JORC Code Explanation	Commentary
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Prior to 2015, there have been four Mineral Resource estimates for the Gabanintha deposit. The first, in 2001 was a polygonal sectional estimate completed by METS & BSG. The subsequent models by Schwann (2007), MASS & Schwann (2008) and CSA (2011) are kriged estimates. AMC reviewed the geological interpretation of the most recent previous model (CSA 2011), but used a new interpretation based on additional new drilling for the 2015 estimate. On completion of the 2015 estimate, AMC documented the probable reasons for the differences in the reported tonnes and grades. No mining has occurred to date at Gabanintha, so there are no production records.
	The assumptions made regarding recovery of by-products.	No assumptions were made regarding recovery of by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).	Estimates were undertaken for Fe <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub> , TiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> and LOI, which are non-commodity variables, but are useful for determining recoveries and metallurgical performance of the treated ore. Estimated Fe <sub>2</sub> O <sub>3</sub> % grades were converted to Fe% grades in the final for reporting (Fe% = Fe <sub>2</sub> O <sub>3</sub> /1.4297). Estimates were also undertaken for Cr <sub>2</sub> O <sub>3</sub> in the 2015 estimate, which is a potential deleterious element. The estimated Cr <sub>2</sub> O <sub>3</sub> % grades were converted to Cr ppm grades in the final model for reporting (Cr ppm = (Cr <sub>2</sub> O <sub>3</sub> *10000)/1.4615).
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The Gabanintha block model uses a parent cell size of 40 m in northing, 10 m in easting and 5 m in RL. This corresponds to approximately half the distance between drillholes in the northing and easting directions and matches an assumed bench height in the RL direction. Accurate volume representation of the interpretation was achieved. Grade was estimated into parent cells, with all sub-cells receiving the same grade as their relevant parent cell. Search ellipse dimensions and directions for each domain were set in the final model to 200m in the primary direction (along strike), 100m down dip and 30m across strike. Three search passes were used for each estimate in each domain. The first search allowed a minimum of 8 composites and a maximum of 15 composites. For the second pass, the first pass search ranges were expanded by 2.5 times. A minimum of 5 composites and the same maximum were allowed. The third pass search ellipse dimensions were extended by 4 times. A minimum of 2 composites and a maximum of 15 composites were allowed for this pass. A limit of 4 composites from a single drillhole was permitted.
	Any assumptions behind modelling of selective mining units.	No selective mining units were considered in this estimate apart from an assumed five metre bench height for open pit mining. Model block sizes were determined primarily by drillhole spacing and statistical analysis of the effect of changing block sizes on the final estimates.

Criteria	JORC Code Explanation	Commentary
	Any assumptions about correlation between variables.	All elements within a domain used the same sample selection routine for block grade estimation. No co-kriging was performed at Gabanintha, but correlation studies on the composite data showed very good correlation (0.8 or above) between most variables, apart from Cr which has a correlation coefficient of 0.65 with V <sub>2</sub> O <sub>5</sub> .
	Description of how the geological interpretation was used to control the resource estimates.	The geological interpretation is used to define the mineralization, oxidation and alluvial domains. All of the domains are used as hard boundaries to select sample populations for variography and grade estimation.
	Discussion of basis for using or not using grade cutting or capping.	Analysis showed that none of the domains had statistical outlier values that required top-cut values to be applied.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Validation of the block model consisted of: <ul style="list-style-type: none"> <li>• Volumetric comparison of the mineralization wireframes to the block model volumes.</li> <li>• Visual comparison of estimated grades against composite grades.</li> <li>• Comparison of block model grades to the input data using swathe plots.</li> </ul> As no mining has taken place at Gabanintha to date, there is no reconciliation data available.
<b>Moisture</b>	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All mineralization tonnages are estimated on a dry basis. The moisture content in mineralization is considered very low.
<b>Cut-off parameters</b>	The basis of the adopted cut-off grade(s) or quality parameters applied.	A 0.3% V <sub>2</sub> O <sub>5</sub> cut off for low grade and a 0.7% V <sub>2</sub> O <sub>5</sub> cut off for high grade has been used to report the Mineral Resource at Gabanintha. Consideration of previous estimates, as well as the current mining, metallurgical and pricing assumptions, while not rigorous, suggest that the currently interpreted mineralized material has a reasonable prospect for eventual economic extraction at these cut off grades.
<b>Mining factors or assumptions</b>	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.	AMC is currently planning to undertake a mining Scoping Study for Gabanintha on behalf of YRR. The primary mining scenario being considered is conventional open pit mining. AMC has assumed, based on initial concept study work and the nearby presence of a similar project (Windimurra mine site), that the Gabanintha deposit is amenable to open-pit mining methods.

Criteria	JORC Code Explanation	Commentary
<b>Metallurgical factors or assumptions</b>	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.	Metallurgical studies are at an early stage, but have delivered highly encouraging results to date, particularly with Davis Tube testwork. Studies are ongoing as part of the progression of the project past scoping study level.
<b>Environmental factors or assumptions</b>	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 greenfield 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.	Environmental studies will be undertaken the time of the scoping study work.
<b>Bulk density</b>	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	<p>Bulk density determinations (using the Archimedes' method) were made on 15 diamond drillholes, with a further 200 pycnometer readings taken from four RC holes.</p> <p>Combined bulk density data and factored pycnometer data were used to determine average densities for each of the mineralisation and oxide domains. Bulk density has been estimated from density measurements on core. Pycnometer results are taken from laboratory readings of RC chip sample pulps.</p> <p>A total of 128 direct core measurements were used (including 5 repeats) to determine appropriate porosity factors for the 200 pycnometer readings (factors decrease the values), so that both sets of results plotted on a very similar percentile plot curve.</p>
	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.	<p>The water immersion method was used for direct core measurements; but it is not documented as to whether the core was sealed if highly vuggy. AMC's observation of the core indicates that observable porosity was not likely to be high for most of the core at the deposit.</p> <p>The pycnometer readings have had porosity factors applied which reduced the pycnometer readings. The factors applied were 12% porosity for fresh high grade, 27% for oxide high grade, 14% porosity for fresh low grade and 31% porosity for oxide low grade.</p>



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	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	<p>The bulk density values applied for the resource estimate at Gabanintha are:</p> <table border="1" data-bbox="1290 308 1957 560"> <thead> <tr> <th>Domain</th> <th>Oxidation State</th> <th>Bulk Density</th> </tr> </thead> <tbody> <tr> <td>100 (high grade)</td> <td>Oxide</td> <td>3.11</td> </tr> <tr> <td>100 (high grade)</td> <td>Fresh</td> <td>3.73</td> </tr> <tr> <td>1000 - 11000 (low grade)</td> <td>Oxide</td> <td>2.23</td> </tr> <tr> <td>1000 - 11000 (low grade)</td> <td>Fresh</td> <td>2.63</td> </tr> <tr> <td>99999 (waste)</td> <td>Oxide</td> <td>2.03</td> </tr> <tr> <td>99999 (waste)</td> <td>Fresh</td> <td>2.49</td> </tr> </tbody> </table> <p>All values are in t/m<sup>3</sup>.</p>	Domain	Oxidation State	Bulk Density	100 (high grade)	Oxide	3.11	100 (high grade)	Fresh	3.73	1000 - 11000 (low grade)	Oxide	2.23	1000 - 11000 (low grade)	Fresh	2.63	99999 (waste)	Oxide	2.03	99999 (waste)	Fresh	2.49
Domain	Oxidation State	Bulk Density																					
100 (high grade)	Oxide	3.11																					
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<b>Classification</b>	<p>The basis for the classification of the Mineral Resources into varying confidence categories.</p> <p>Whether appropriate account has been taken of all relevant factors (i.e. 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).</p> <p>Whether the result appropriately reflects the Competent Person's view of the deposit.</p>	<p>Classification for the Gabanintha Mineral Resource estimate is based upon continuity of geology, mineralization and grade, considering drillhole and density data spacing and quality, variography and estimation statistics (number of samples used and estimation pass).</p> <p>The current classification is considered valid for the global resource and applicable for the nominated grade cut-offs. Revision of the resource classification should be considered if different reporting cut-off grades are to be applied.</p> <p>At Gabanintha, the central portion of the deposit is well drilled for a vanadium deposit, having a drillhole spacing from a nominal 80 m to 100 m x 25 m to 30 m in northing and easting. The lower confidence areas of the deposit have drillhole spacings ranging up to 500 m x 25 m to 30 m in northing and easting directions.</p> <p>In general, the estimate has been classified as Measured Mineral Resource in an area restricted to the fresh portion of the high grade domain where the drillhole spacings are less than 80 to 100m in northing. Indicated Mineral Resource material is generally restricted to the oxide high grade and oxide and fresh low grade in the same area of relatively closely spaced drilling. Inferred Mineral Resource has been restricted to any other material within the interpreted mineralization wireframe volumes.</p> <p>The background waste domain estimate has not been classified, due to very low possibility of economic extraction and limited data.</p> <p>AMC believes that the classification appropriately reflects its confidence in the grade estimates and robustness of the interpretations.</p>																					
<b>Audits or reviews</b>	The results of any audits or reviews of Mineral Resource estimates.	The current Mineral Resource estimate has not been audited.																					

Criteria	JORC Code Explanation	Commentary
<p><b>Discussion of Relative accuracy/ confidence</b></p>	<p>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.</p>	<p>The resource classification represents the relative confidence in the resource estimate as determined by the Competent Person. Issues contributing to or detracting from that confidence are discussed above.</p> <p>No quantitative approach has been conducted to determine the relative accuracy of the resource estimate.</p> <p>The Ordinary Kriged estimate is considered to be a global estimate with no further adjustments for Selective Mining Unit (SMU) dimensions. Accurate mining scenarios are yet to be determined by mining studies.</p> <p>No production data is available for comparison to the estimate.</p> <p>The local accuracy of the resource is adequate for the expected use of the model in the mining studies.</p> <p>Further investigation into bulk density determination and infill drilling will be required to further raise the level of resource classification.</p>
	<p>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</p>	<p>These levels of confidence and accuracy relate to the global estimates of grade and tonnes for the deposit.</p>
	<p>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</p>	<p>There has been no production from the Gabanintha deposit to date.</p>

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