



14<sup>TH</sup> NOVEMBER 2017

## West Musgrave Project to progress to Pre-Feasibility Study

- **OZ Minerals proceeding to next stage of Earn-in Agreement (OZ Minerals can earn 51 per cent of the Project by spending \$19 million within 18 months)**
- **Further Scoping Study shows investable base case for Nebo-Babel with upside potential through resource conversion**
- **OZ Minerals to manage Pre-Feasibility Study (PFS)**
- **PFS to focus on improving metallurgical recoveries, lower cost non-process infrastructure and resource conversion**
- **Exploration program to focus on regional potential including One Tree Hill prospect and Succoth copper deposit <sup>1</sup>**

Cassini Resources Limited (**Cassini** or **Cassini Resources**) and OZ Minerals Limited (**OZ Minerals**) today announced that the West Musgrave nickel copper project in Western Australia (**Project** or **West Musgrave Project**) will proceed to a Pre-Feasibility Study (PFS) following positive results from a further scoping study (FSS or the “Study”). The Study, which examined project scale options and management of technical risks, delivered positive economic outcomes for a large, low cost mine. The project is located 20 kilometres from Jameson which is serviced by a commercial grade airstrip and mobile telecommunications.

OZ Minerals has decided to proceed to the next stage of its Farm-in and Joint Venture agreement with Cassini Resources (**Earn-in Agreement** or **Earn-in**) which enables OZ Minerals to earn 51 per cent of the Project with an investment of \$19 million.

Announcing the FSS results and next steps today, Cassini Resources Managing Director, Richard Bevan, and OZ Minerals Chief Executive Officer, Andrew Cole, said the positive study results supported further investment to refine project scope, extend mine life and investigate the optimal project configuration.

Richard Bevan said: “The Scoping Study advances the development of the Nebo-Babel deposits. The increased scale of the project has opened up a range of possibilities beyond what we had originally contemplated, with potential for further upside to be realised in the upcoming PFS. We have an initial 8 years of mine life with clear view on increasing this to beyond 15 years. The exploration program will expand our understanding of the mineralisation at One Tree Hill and the Succoth copper deposit, as we pursue our goal of establishing a multi-decade mining operation. We look forward to our continuing relationship with OZ Minerals and to delivering sustainable value to all our shareholders through the development of the Project.”

Andrew Cole said: “The Further Scoping Study has confirmed the economic viability of the Nebo-Babel project and has increased our confidence in the potential of the Project. This is an exciting new mineral province with attractive near mine and district opportunities. Investment will be made during the pre-feasibility to focus on Inferred to Indicated Resource conversion for inclusion into the mining inventory thereby extending mine life within the current pre-production capital profile. The geological style at Nebo-

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<sup>1</sup> Refer Cassini ASX release, 7 December 2015, Maiden Succoth Resource Estimate  
<http://clients3.weblink.com.au/pdf/CZI/01693495.pdf>

Babel shows good consistency for conversion. The PFS will also focus on further improving the metallurgical recoveries. We have developed a good working relationship with Cassini and look forward to the outcomes of this next study phase.”

OZ Minerals’ investment will be used to progress the pre-feasibility work on the Nebo-Babel deposits and exploration activities within the broader Project area.

In order to streamline this next phase Cassini has elected for OZ Minerals to manage the PFS. As part of this agreement, Cassini will be paid \$1.9 million at the commencement of the PFS. Cassini will continue to manage on-ground activities associated with the PFS and the regional exploration program.

A summary of the Further Scoping Study undertaken by Cassini Resources follows.

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### **Cautionary Statement**

Cassini Resources and OZ Minerals advise that the Further Scoping Study referred to in this announcement is based on low-level technical and preliminary economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Further Scoping Study will be realised. The Production Target referred to in this announcement is largely based on Indicated Resources (74%) and partly based on Inferred Mineral Resources (being 26%). There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target or preliminary economic assessment will be realised.

### **Disclaimer**

The West Musgrave Project is still in a state of development, therefore the information in this document and conclusions presented should be viewed in this light.

OZ Minerals, Cassini Resources and its advisors have used reasonable endeavours to ensure this document is based on information that was current as of the date of the document. Statements contained in this document represent the reasonable judgments of OZ Minerals and Cassini Resources based on the information available at the time of preparation.

The Scoping Study was prepared at a  $\pm 35\%$  level of accuracy. Ranges presented in this report are representative of sensitivities and potential improvement opportunities particularly in metallurgical recovery, power and pre-production capital.

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The information upon which the cost curves are based comes from Wood Mackenzie's experience, knowledge and databases. They have been arrived at following careful consideration and enquiry but Wood Mackenzie does not guarantee their fairness, completeness or accuracy. West Musgrave costs have been calculated based on information provided by Cassini Resources Limited.

Wood Mackenzie also does not warrant or represent that the cost curves or its contents are sufficient or appropriate for the readers' purpose or requirements. Any use or reliance by the readers of this report or its contents are therefore not foreseeable to Wood Mackenzie. While due care has been used in the preparation of any forward-looking or forecast information, actual results may vary in a materially positive or negative manner. Forecasts and hypothetical examples are subject to uncertainty and contingencies outside Wood Mackenzie's control. Past performance is not a reliable indication of future performance.

The information in this statement and the following Further Scoping Study summary that relates to exploration results has not been compiled by OZ Minerals. OZ Minerals has relied on Cassini Resources exploration, verification and evaluation techniques in respect of historical exploration results reported in this announcement.

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## Further Scoping Study (FSS) Summary

**Table 1: Financial and Production Metrics**

Key Financial and Production Metrics	
Processing capacity	10+ Mtpa
Initial Mine life	8 years
Average Nickel Metal production <sup>1</sup>	20-25ktpa
Average Copper Metal production <sup>1</sup>	25-30ktpa
Average Cobalt Metal production <sup>1</sup>	700-1,000tpa
Nickel equivalent grade <sup>2</sup>	0.5-0.6%
Copper equivalent grade <sup>2</sup>	1.0-1.2%
Nickel grade	0.3-0.4%
Copper grade	0.35-0.45%
C1 cost payable Ni main <sup>3</sup>	200-230USc/lb
All-in sustaining cost Ni main	290-330USc/lb
C1 cost payable Cu main <sup>3</sup>	20-40USc/lb
All-in sustaining cost Cu main	60-90USc/lb
Pre-production capital <sup>4</sup>	\$730-800m

	Post-tax	Pre-tax
Average net cash flow (Years 1-8)	\$120-150m	\$150-200m
Internal Rate of Return <sup>5</sup>	20-25%	25-30%
Project Payback	3-4yrs	2-3yrs

Ranges are representative of sensitivities and potential improvement opportunities for resource conversion, metallurgical recoveries, power and pre-production capital. Excludes OZ Minerals earn-in/study costs.

1. Average metal production is calculated over the initial mine life of eight years
2. Nickel equivalent grade = Ni% + Cu% x 0.56. Copper equivalent grade = Cu% + Ni% x 1.97. Based on assumed recoveries of 73% for Cu and 59% for Ni and commodity prices shown below. It is the Cassini's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold.
3. Financial valuation has used long term consensus forecasts of Ni: US\$7.13/lb, Cu: US\$2.95/lb, Co: US\$14.20/lb, Au: US\$1,292/oz, Pt: US\$1,128/oz, Pd: US\$769/oz and AUD:USD of \$0.74.
4. Pre-production capital includes capitalised pre-strip of up to \$175m, although it is expected that approximately 50% of this cost will be incurred during the first year of production.
5. The production targets referred to in this announcement are based on the first 8 years of production which includes 74% Indicated Mineral Resources and 26% Inferred Mineral Resources. The Inferred Resources do not determine the economic viability of the project as approximately 80% of resources within the optimisation pit shells are in the Indicated Category during the pay-back period. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production targets themselves will be realised.



## 1. OVERVIEW

Cassini Resources has been the operator for the Study on the Nebo-Babel Deposits since execution of the Earn-in/Joint Venture Agreement with OZ Minerals in October 2016. The intent of the Study was to build on Cassini’s 2015 Scoping Study of circa 1.5Mtpa with a view to understanding the scale of the operation whilst also de-risking key technical aspects such as metallurgy and non-process infrastructure costs.

A key outcome of the Study was to confirm and increase the confidence in metallurgical performance of the full range of mineralisation types within the Nebo-Babel deposits. These results have been used to update previous mining and processing studies in order to determine the optimal annual throughput for the operation. In addition, all capital and operating costs were reviewed and updated for inclusion in the current Study. A number of “upside” opportunities have also been identified to be evaluated during the next study stage.

The Study evaluated several development scenarios ranging from 6 to 12Mtpa throughput. The Study demonstrated the economic viability of the Project at all the throughput scenarios with strong annual nickel and copper production and low operating costs. It was determined that the 10Mtpa scenario presented the most financial potential (Table 1).

The low operating costs are driven by low mining costs due to a gently dipping orebody conducive to large-scale open pit mining as well as significant by-product credits. International resources consultancy, Wood Mackenzie Limited (Wood Mackenzie) estimates the Nebo-Babel deposits to be in the lower third of C1 operating costs for nickel projects and bottom quartile for copper projects against global peers.

The Project is strongly leveraged to fluctuations in the AUD:USD exchange rate as well as to the nickel price and nickel recovery.



**Figure 1:** Location of the West Musgrave Project

## 2. Operating Metrics

Mining operations have an initial mine life of eight years with several opportunities to add significant mine life through upgrading of Inferred Resources to Indicated Resources, progressing the Succoth mineral resource and the potential for the advancement of other existing regional exploration targets.

Average annual production is estimated to be 20-25Kt of nickel in concentrate and 25-30Kt of copper in concentrate during the first eight years.

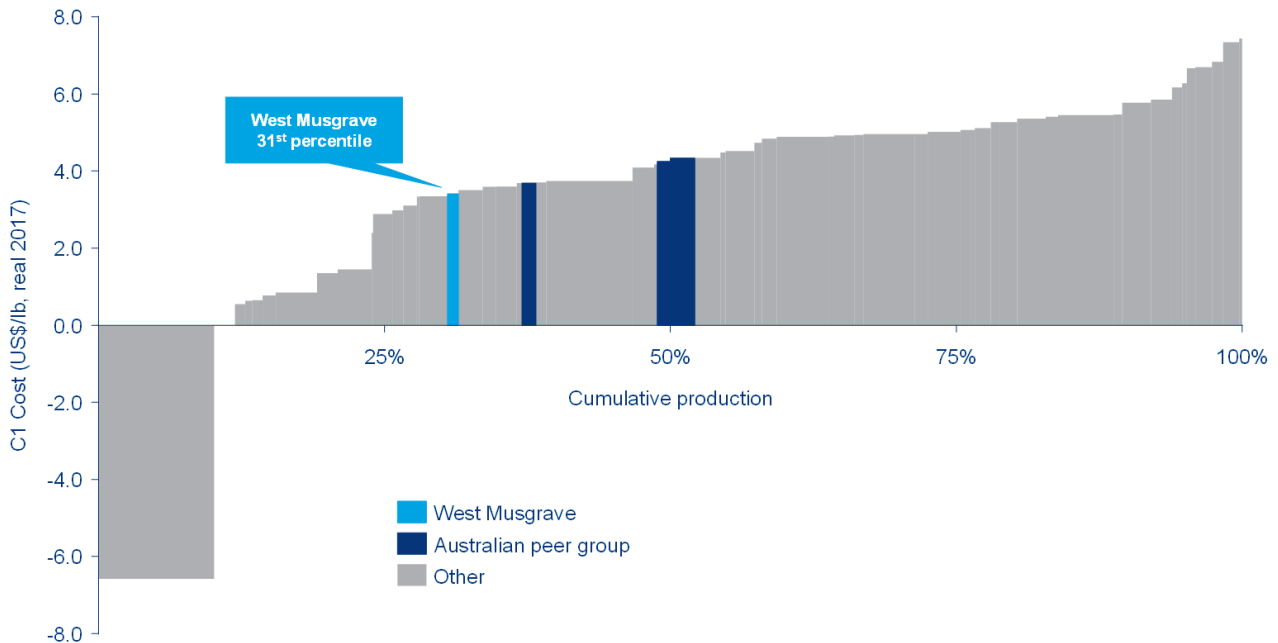
Importantly, in the first three years, the average annual production is estimated to be 25-30Kt nickel and 35-40Kt copper in concentrate, respectively. This supports an estimated payback of the capital expenditure on the Project in less than four years (post-tax).

Cash costs are forecast to be at the lowest end of the range of Australian nickel and copper producers. This represents a significant strategic advantage. The estimated C1 cash operating cost (after by-product credits) is forecast to average US\$2.00–2.30/lb payable nickel (US\$1.30-1.60/lb nickel in concentrate), or an average US\$0.20–0.40/lb payable copper. Table 2 provides key operating cost estimates. Ranges are representative of sensitivities and potential improvement opportunities for metallurgical recoveries, power and pre-production capital.

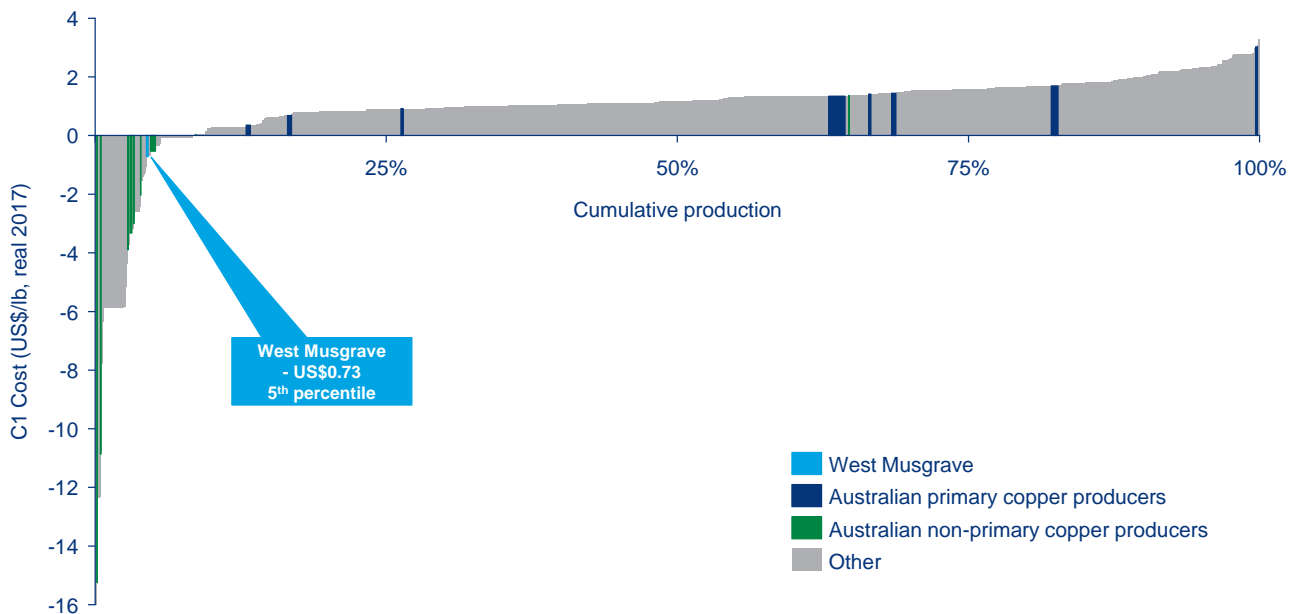
**Table 2: Estimate of C1 cash operating costs (after by-product credits)**

Average Operating Cost Estimates	10Mtpa Case (US\$/lb Ni) Payable Nickel	10Mtpa Case (US\$/lb Ni) Nickel Metal In Concentrate	10Mtpa Case (US\$/lb Cu) Payable copper
<b>Mining</b>	1.50 – 1.75	1.00 – 1.25	0.45 – 0.90
<b>Processing</b>	2.40 – 2.80	1.60 – 2.00	0.75 - 1.50
<b>Power</b>	1.50 – 1.70	1.00 – 1.25	0.45 - 0.90
<b>Transport</b>	1.30 – 1.50	0.85 – 1.05	0.40 – 0.80
<b>Fees &amp; Charges</b>	0.50 – 0.55	0.35 – 0.40	0.15 – 0.30
<b>By-product Credits</b>	(5.20 – 6.00)	(3.50 – 4.35)	(2.00 – 4.00)
<b>Total C1 Cash Cost</b>	<b>\$2.00 - 2.30</b>	<b>\$1.30 – 1.60</b>	<b>\$0.20 – 0.40</b>





**Figure 2:** Global nickel C1 cost curves (Note: West Musgrave costs and production are the life-of-mine average. Cassini's costs for West Musgrave have been aligned with Wood Mackenzie's assumptions related to prices for by-products, and Wood Mackenzie's definition and methodology of C1 costs. The cost estimates are on a paid nickel basis. Source: Cost curve from Wood Mackenzie data, West Musgrave Project costs provided by Cassini Resources Limited)



**Figure 3:** Global copper C1 cost curves (Note: West Musgrave costs and production are the life-of-mine average. Primary copper producers are those that receive more than 65% of net revenue from copper sales on average. Cassini's costs for West Musgrave have been aligned with Wood Mackenzie's assumptions related to prices for by-products, and Wood Mackenzie's definition and methodology of C1 costs. The cost estimates are on a paid copper basis. Source: Cost curve from Wood Mackenzie data, West Musgrave Project costs provided by Cassini Resources Limited)



Pre-production capital cost for the West Musgrave Project is in the range of \$730-\$800M, which includes capitalised pre-strip of \$160-175M. This represents the cost of developing the Project through to 2022 excluding OZ Minerals earn-in/study costs. The breakdown of estimated pre-production capital is provided in Table 3 below. The West Musgrave Project is a low capital intensity nickel-copper project with capital intensity of around US\$7,800/CuEq tonne.

**Table 3: Pre-production capital costs**

Capital cost estimate	(AUD\$ million)
Mining pre-strip	160 – 175
Process Plant	350 – 370
Site Infrastructure	45 – 55
Tailings Storage Facility	20 – 25
Water supply	55 – 60
Road upgrades	5 – 10
Owners costs	45 – 50
Contingency	50 – 55
<b>Total</b>	<b>730 – 800</b>

### 3. Mineral Resource Estimate

The Nebo-Babel Mineral Resource estimate was updated during the Study with additional drill holes completed during 2017 and more detailed information on the weathering and transition zones. The geological interpretation at Nebo was modified slightly while Babel remained unchanged from the resource estimate released in Cassini's ASX announcement dated 25 February 2015. The estimate was completed by independent resource consultancy, Golder Associates Pty Ltd (Golder Associates).

Economic analysis in the Study has shown that an appropriate nickel cut-off grade for the Project is in the range of 0.20-0.30% nickel. As such, Cassini Resources has set the Mineral Resource Estimate at a 0.25% nickel cut-off, which is summarised below.

**Table 4. Nebo-Babel Indicated and Inferred Mineral Resource (0.25% Ni cut-off) as at 14 November 2017**

Class	Deposit	Tonnes (Mt)	Ni (%)	Cu (%)	Co (ppm)	Contained Ni metal (t)	Contained Cu metal (t)
<b>Indicated</b>	Babel	73.9	0.36	0.41	132	270,000	305,000
	Nebo	37.8	0.49	0.44	211	185,000	165,000
	<b>Sub-total</b>	<b>111.6</b>	<b>0.41</b>	<b>0.42</b>	<b>158</b>	<b>455,000</b>	<b>470,000</b>
<b>Inferred</b>	Babel	169.4	0.33	0.37	123	560,000	630,000
	Nebo	1.9	0.37	0.34	149	5,000	5,000
	<b>Sub-total</b>	<b>171.3</b>	<b>0.33</b>	<b>0.37</b>	<b>124</b>	<b>565,000</b>	<b>635,000</b>
<b>Total</b>		<b>283.0</b>	<b>0.36</b>	<b>0.39</b>	<b>137</b>	<b>1,020,000</b>	<b>1,105,000</b>



#### 4. Metallurgy

Test work in Cassini's 2015 Scoping Study was focused on the relatively high head grade ore domains, which would be processed through a 1.5Mtpa treatment plant. The scope of the recent testwork program was designed to cover whole ore composites and variability samples which are representative of the ore domains and average head grades which align more with the proposed increase in project throughput options.

This current program has increased the level of understanding and confidence in the metallurgical performances across a complete range of mineralisation types within the Nebo-Babel deposits. The testwork focused on lower head grade samples across the primary and weathered ore domains, some of which were not previously tested. No oxide material is being considered for treatment. A significant component of the testwork included optimisation of the process flow sheet, and testing of alternative reagent regimes, all of which were aimed at further improving nickel and copper recoveries and concentrate grades.

Testwork was conducted at Bureau Veritas Laboratories in Perth under the supervision of GR Engineering Services. The testwork comprised 200 flotation tests and covered 17 variability composites (different mineralised domains covering a range of nickel and copper grades). A parallel program of independent umpire test work has been completed by ALS Metallurgy in Perth. This program successfully reproduced the initial results.

Two locked cycle tests on master composites, each representing typical run of mine material, of the early and later years of a likely mine schedule, have also been tested. Locked cycle tests are used to simulate continuous flotation circuit conditions, such as those in an actual process plant, during which various streams are recycled until the test achieves stability.

The program has successfully produced separate, saleable nickel and copper concentrates from all mineralised domains including the weathered ore-domains (transition zone and pyrite-violarite zones, but not oxide). Importantly both concentrates have no penalty elements such as arsenic and have high Fe:MgO ( $\geq 10$ ), both of which are desired by smelters. Results of the final cycle for the two master composites are shown in Table 5.

Results of the metallurgy program have been combined with the new resource model to generate a metallurgy model so that each resource block has an associated recovery factor to provide more effective mining optimisation.

**Table 5: Locked cycle test results**

Mineralisation Type	Nickel Concentrate		Copper Concentrate	
	Recovery (%)	Grade (%)	Recovery (%)	Grade (%)
Master Composite A	45	10	78	21
Master Composite B	70	10	78	25

Master Composite A comprises 10% Nebo primary massive and breccia mineralisation, 30% Nebo weathered massive and breccia mineralisation and 60% Babel weathered disseminated mineralisation. This composite approximates one of the potential processing streams during the first 2 years of operation.

**Note:** *Master Composite A includes 90% of the shallow weathered mineralisation which would be mined first. With only 10% primary ore, it is likely to represent a worst-case processing scenario. An objective of future study phases is to find the optimum blend of the weathered and primary ore before the operation returns to steady-state production on 100% primary ore in later years.*

Master Composite B comprises 50% Nebo primary massive and breccia mineralisation, 48% Babel primary disseminated mineralisation and 2% Babel disseminated transition zone. This master composite approximates potential processing streams in the later years of operation.

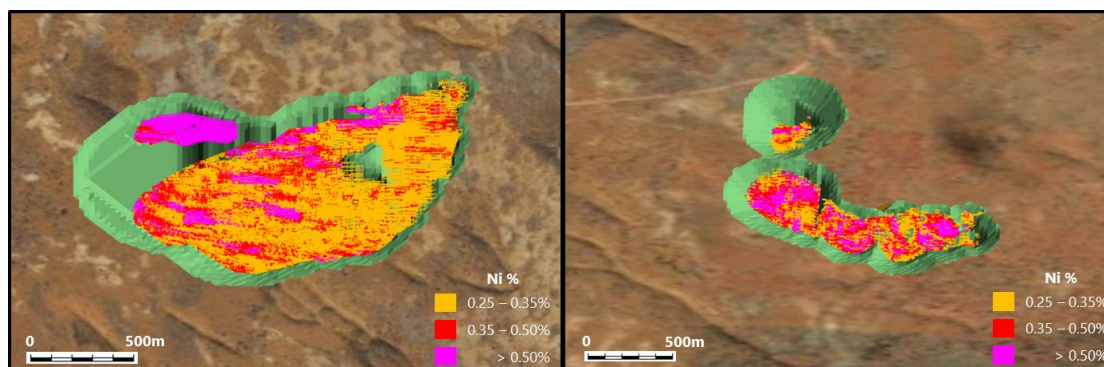
**Note:** Based on the results of Master Composite B, Cassini could reasonably target a final nickel concentrate grade of **10-12%** with recoveries in the range of **55-70%**.

## 5. Mining and Scheduling

The Mining Study was done by independent consultancy, Mining Plus Pty Ltd (Mining Plus). Mining optimisation was done using Whittle software for each deposit separately before being scheduled manually. It is proposed to mine the Nebo deposit first followed by Babel, with a total mineable resource of circa 150Mt at a nickel grade 0.35% and copper grade of 0.40% demonstrated in figure 4.

The first eight years of mine life include 74% Indicated Mineral Resources including 80% during the pay-back period and therefore Inferred Resources do not underpin the economic viability of the Project. Pre-strip waste removal contributes up to \$175M to pre-production capital, although up to \$95M is expected to be incurred during the first year of production.

A feature of the pit optimisation is a very low stripping ratio of 3.2:1 due to relatively flat deposit geometry and thick mineralised zones. Mining is by conventional drill & blast, load and haul, utilising an appropriately sized earthmoving fleet operated by contractors on behalf of Cassini.



**Figure 4:** Optimised pit shells for Babel (left) and Nebo (right) showing nickel ore blocks

## 6. Ore Processing

An ore processing plant will be built on-site and will comprise conventional crushing, milling and classification circuits followed by two stages of conventional flotation with cleaning and re-cleaning to produce separate nickel and copper concentrates.

The Project is expected to produce significant amounts of nickel and copper with the 10Mtpa case expected to deliver 20-25Kt of nickel in concentrate and 25-30Kt of copper in concentrate per annum over the first eight years.

Due to the high-grade mineralisation being at the top of the deposits, the first three years of operation may produce significantly greater quantities of nickel and copper of 25-30Kt and 35-40Kt in concentrate respectively, assisting rapid payback of capital. Further optimisation of concentrate production over LOM will be undertaken in the PFS stage.

## **7. Water Supply**

Independent consultants, CDM Smith, completed a review of water supply options for the Project. The study included a detailed desktop assessment of all potential groundwater sources and incorporated the results from three groundwater exploration holes that were drilled in April 2017 to test palaeochannel aquifers approximately 20km from Nebo-Babel. Water supply infrastructure concepts for multiple water demand scenarios and different groundwater sources were also developed and evaluated.

The groundwater exploration drilling has demonstrated that “on-project” palaeochannels can potentially support up to 7GL/yr, sufficient to supply the 10Mtpa processing plant. Additional palaeochannels have been identified and secured through recent tenement applications with a view to providing additional water resources.

This is a significant advancement and provides a more cost-effective water supply solution with lower risks to tenure and access than the previous Scoping Study.

## **8. Power Supply**

WSP were engaged to undertake a study of power generation options for the Project. Energy source options considered for conventional generation comprised diesel, gas and LNG. Renewable energy sources considered comprised wind, solar and a number of hybrid options using wind, solar, battery and diesel backup options.

A 60MW power plant has been proposed for the 10Mtpa case utilising a combined solar-diesel hybrid solution. Operating costs were benchmarked against recent large solar installations and also included a detailed assessment of fuel transport costs.

Renewable energy options included a more detailed assessment of the Project area in order to identify areas that may provide improved wind resource for potentially siting a large wind farm to support a solar-wind-diesel-battery power plant with even greater savings. Two new sites have been identified within the project with a theoretical 35% greater wind energy compared to the site that was previously contemplated. Wind masts are planned to be erected early in the PFS to collect base line data and confirm wind energy estimates.

In addition to updating diesel power generation assumptions, the Study included high-level assessment of gas power generation, a first for the Project. Gas power is generally a very cost-effective power solution for projects with long mine life, which is required to offset high gas pipeline capital costs. A 10Mtpa operation may justify the installation of a gas pipeline which will be investigated at a later stage in the Project.

## **9. Transport Logistics**

Qube Bulk Pty Ltd (Qube) were engaged to undertake a Transport Logistics Study. A lower diesel price assumption and lower rail and port charges have resulted in significantly lower concentrate transport costs compared to those used in the 2015 Scoping Study.

The FSS has confirmed that the previous transport option of exporting concentrates through Esperance is still the preferred route. This option includes road transport along the Great Central Road to a central hub at Leonora, followed by rail transport to Esperance. Other road transport routes to Geraldton or east-bound to the Darwin-Adelaide Railway remain potentially viable alternatives.

Qube has also provided transport costs for inbound mine consumables and evaluated back-loading options, which has helped to further reduce overall transport costs compared to previous studies.

## **10. Community and Environment**

AECOM completed an update to the 2015 environmental assessment with a focus on the approval process required for the Project. Further environmental surveys are planned for 2018 as part of that approval process.

A community meeting was held with the Yarnangu people, the traditional owners of the land on which the Project is located, and members of the Ngaanyatjarra Land Council earlier in 2017 and heritage surveys to support field programs have been undertaken throughout the year. Ongoing engagement will continue with the Yarnangu community and other key stakeholders.

## **11. Significant Risk Mitigation**

One of the goals of the FSS was to reduce the risk around key technical aspects of the project. A summary of these achievements is as follows:

- Confirmation of metallurgical recoveries at lower grades consistent with planned mining inventory across a more extensive range of ore domains
- Construction of a metallurgical recovery model for better mine optimisation
- More precise geological modelling of weathering boundaries in the resource model
- Identification of substantial water sources within the Project area
- Confirmation of renewable energy generation options to support base-load solar-diesel power
- Identifying the optimal scale of the operation

## **12. Value Enhancement Opportunities**

A number of opportunities to enhance economic returns have been identified that were beyond the scope of the current Study. These opportunities will be evaluated during the PFS stage and include, but are not limited to:

- Increasing the mine life through the conversion of Inferred Resource to Indicated Resource within current pre-production capital profile
- Evaluation of wind generated power to be combined with diesel-solar energy systems to reduce power costs
- Metallurgical recovery improvement through alternative flowsheets such as applying magnetic separation to tailings
- Improved mine scheduling and stockpile management
- Potential for high-value exploration discoveries such as One Tree Hill to be brought into development
- The addition of the Succoth deposit, which is not included in Project valuation, provides significant leverage to future copper prices

Figure 5 below shows the district potential and the location of near mine prospects including One Tree Hill and Succoth.



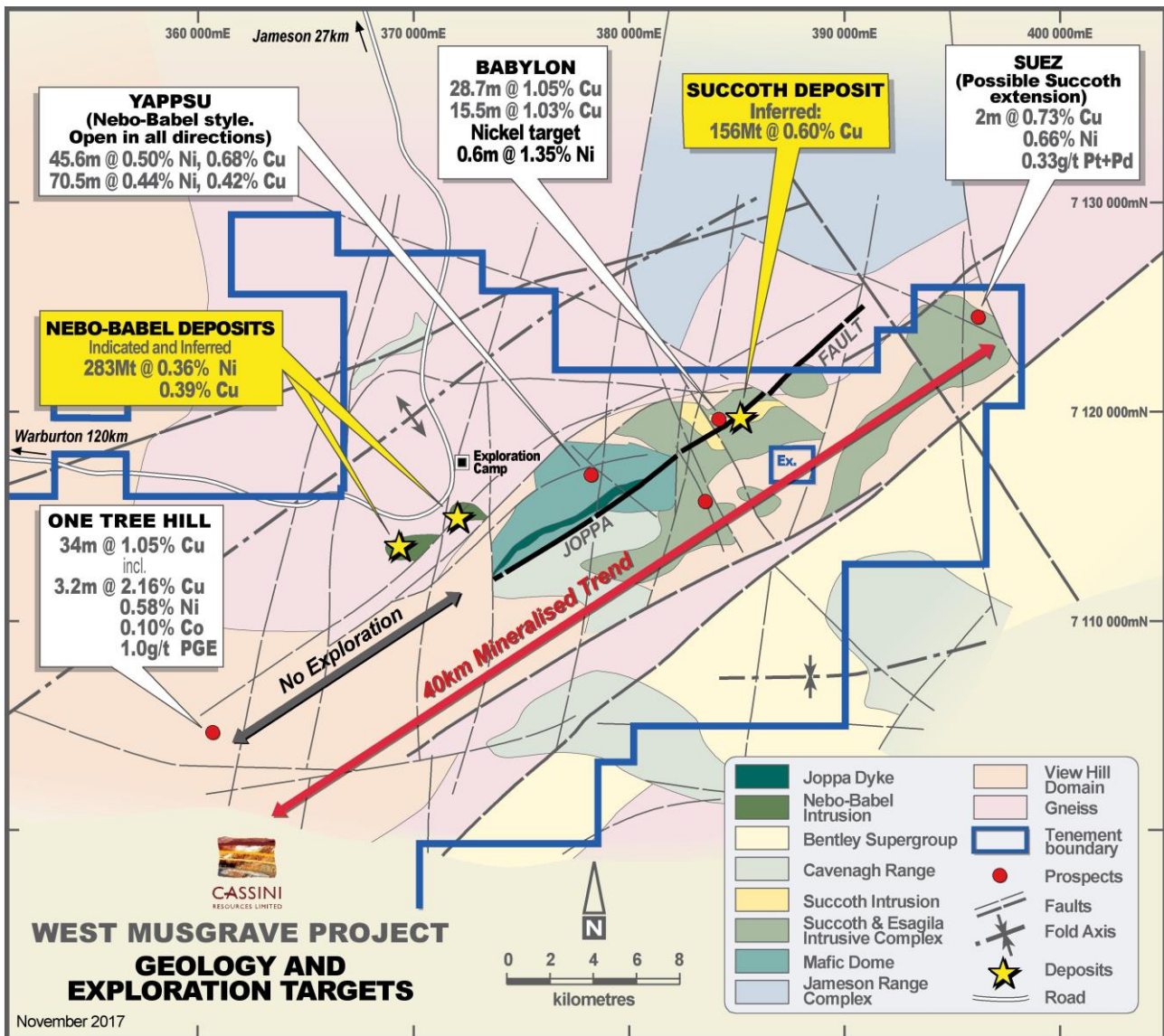


Figure 5: Regional geology and exploration targets

### 13. Permitting

The Nebo-Babel deposits are contained within granted Mining Leases within the West Musgrave Project area. Cassini anticipates that the regulatory approvals process required for the commencement of construction and the subsequent mining approvals will not be likely to delay production as proposed.

### 14. Timeline to Production

This Further Scoping Study estimates that the commencement of production to be July 2022.

This is based on the timeline prescribed under the Earn-in Agreement between OZ Minerals and Cassini for a decision to mine being made around July 2020. Following a positive decision to mine, the estimate assumes an 18-month construction period and a pre-production capital requirement of \$730-800 million.

## 15. Financing

Under the current Earn-in Agreement between OZ Minerals and Cassini Resources, OZ Minerals has the right to earn up to a 70% interest in the West Musgrave Project by funding a minimum expenditure of \$36 million over a maximum period of 3.5 years to complete the study work required to reach a decision to mine. This occurs through 3 milestones, the initial milestone having already been met through the successful completion of the Further Scoping Study. The next milestone of the Earn-in is a contribution of \$19 million to a PFS within an 18-month period to earn a 51% interest in the Project. On successful completion of this, OZ Minerals may elect to progress to the final Joint Venture stage of the agreement where they can earn an additional 19% interest (that is a total of 70%) by contributing a further A\$14 million to complete a Definitive Feasibility Study. Cassini has a free carry interest of 30% up to the completion of the minimum spend requirements (\$36M) and then a loan carry to production cash flow if the amount required to complete a DFS exceeds the minimum spend.

Under the terms of the current agreement, and based on the assumption that OZ Minerals progresses through to a decision to mine, OZ Minerals will be required to fund 70% of the pre-production capital requirement. Cassini will be required to fund 30% of the pre-production capital requirement. Cassini will only be required to meet a maximum of 30% of the total pre-production capital (30% of approximately A\$730M to A\$800M) through the issue of equity or the assumption of debt financing. The requirement for this capital is expected to be at the time of the “decision to mine” in mid-2020. Cassini is confident that as the Project is de-risked through the development studies, the Company’s share price and therefore market capitalisation will increase to be more reflective of the Project value, improving the potential ability for Cassini to raise its share of the development. It is possible that the required funding may only be available on terms that may be dilutive to, or otherwise affect, the value of Cassini’s shares.

Cassini believe there is a reasonable basis to assume that the necessary funding for the Project will be available when required. This is based on, but not limited to, the following:

- The Earn-in arrangement with OZ Minerals. If OZ Minerals continues to progress through the Earn-in, they will be required to fund 70% of the Project capital;
- The economics of the Scoping Study are highly attractive and it is reasonable for Cassini to anticipate that equity financing will be available for a maximum of 30% of the capital required to develop the Project;
- In addition to future equity financing, Cassini may, at the appropriate time, commence discussions with potential debt providers, off-take partners or other strategic investors/ partners to progress all funding options available to the Company. It is expected, given the economics of the project, the stable jurisdiction and presence of a strong partner who is funding 70%, debt or other financing is likely to be available for Cassini’s part of the Project funding;
- The Board & Management have experience of securing equity financing on the ASX; and
- The Company has a history of successful capital raisings and over the last 5 years has completed over A\$20.0 million in equity capital raisings to sophisticated and professional investors, institutional investors and shareholders.

Given the above, the Directors of Cassini have concluded they have a reasonable basis to expect that the Project can be funded to production should the following feasibility studies confirm the Project’s viability.





## **16. Next Steps**

Stage 2 of the Earn-in will commence immediately with a focus on addressing remaining technical threats and opportunities for project enhancements. Work programs during this stage will include:

- Further infill drilling of the mineral resource particularly within the estimated payback period
- Advance metallurgical test work with a focus on material from the estimated payback period
- Explore alternative processing flowsheets to identify value-add opportunities
- Confirmation of groundwater resources through further exploration and pump tests
- Commence renewable energy baseline data collection
- Complete further environmental surveys for mine permitting; and
- Undertake consultation with key stakeholder groups

The exploration program will consider numerous regional targets including the One Tree Hill Prospect which is an exciting discovery made in December 2016. Further details of the exploration programs will be released once they are finalised.



**CASSINI**  
RESOURCES LIMITED

## **About Cassini**

Cassini Resources Limited (ASX: CZI) is a base and precious metals developer and explorer based in Perth. In April 2014, Cassini acquired its flagship West Musgrave Project (WMP), located in Western Australia. The Project is a world-class asset which currently has over 1.0 million tonnes of contained nickel and 2.0 million tonnes of contained copper in Resource. The Project is a new mining camp with three existing nickel and copper sulphide deposits and a number of other significant regional exploration targets already identified. The WMP is the largest undeveloped nickel copper project in Australia.

In August 2016, Cassini entered into a three-stage \$36M Farm-in/Joint Venture Agreement with prominent Australian mining company OZ Minerals Ltd (ASX: OZL). The Joint Venture provides a clear pathway to a decision to mine and potential cash flow for Cassini.

Cassini is also progressing its Mt Squires Gold Project in WA and an early stage zinc exploration project in the West Arunta region of WA.

## **Competent Persons Statement**

The information in this statement which relates to the Mineral Resource data, including tenement information, drilling, sampling, and analytical results, geology interpretation, and selection of cut-off grade has been overseen by Mr Greg Miles who is a full-time employee of Cassini Resources Ltd and a Member of the Australasian Institute of Geoscientists. Mr Miles has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code, 2012 Edition.

The information in this report which relates to the Nebo-Babel Mineral Resource estimation and classification has been prepared by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Weeks has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code, 2012 Edition. Both Mr Miles and Mr Weeks consent to the inclusion in this report of the matters based on information in the form and context in which it appears.

Please refer to Cassini's ASX announcement of 7 December 2015 for the Competent Person Statement and JORC disclosure tables relating to the Succoth Mineral Resource Estimate.

Cassini is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Exploration Results, Mineral Resource Estimates and Production Targets continue to apply and have not materially changed.

## APPENDIX 1:

### Mineral Resource Statement

The Mineral Resources are classified as either Indicated or Inferred Resources based on data density and geological confidence with consideration given to economic criteria by constraining reporting to only those blocks at a 0.25% Ni cut-off grade.

The Mineral Resource estimate is based on a block model interpolated using Ordinary Kriging (OK) and is reported on a Ni head grade basis. Mineral Resources for the Nebo-Babel deposits at a 0.25% Ni cut-off grade are summarised in Table 1.

Class	Deposit	Tonnes (Mt)	Ni %	Cu %	Co ppm	Au ppm	Pd ppm	Pt ppm
Indicated	Nebo	37.8	0.49	0.44	211	0.04	0.08	0.07
	Babel	73.9	0.36	0.41	132	0.06	0.10	0.09
	<b>Sub-total</b>	<b>111.6</b>	<b>0.41</b>	<b>0.42</b>	<b>158</b>	<b>0.06</b>	<b>0.10</b>	<b>0.08</b>
Inferred	Nebo	1.9	0.37	0.34	149	0.04	0.08	0.07
	Babel	169.4	0.33	0.37	123	0.06	0.10	0.09
	<b>Sub-total</b>	<b>171.3</b>	<b>0.33</b>	<b>0.37</b>	<b>124</b>	<b>0.06</b>	<b>0.10</b>	<b>0.09</b>
Ind + Inf	Nebo	39.7	0.48	0.43	208	0.04	0.08	0.07
	Babel	243.3	0.34	0.38	126	0.06	0.10	0.09
<b>Grand Total</b>		<b>283.0</b>	<b>0.36</b>	<b>0.39</b>	<b>137</b>	<b>0.06</b>	<b>0.10</b>	<b>0.09</b>

#### The JORC Code Assessment Criteria

The JORC Code, 2012 Edition describes a number of criteria, which must be addressed in the Public Reporting of Mineral Resource estimates. These criteria provide a means of assessing whether or not parts of or the entire data inventory used in the estimate are adequate for that purpose. The Mineral Resource estimates stated in this document are based on the criteria set out in Table 1 of that Code (Table 2).

Table 2: JORC Code Table 1

JORC Code Assessment Criteria	Comment
<b>Section 1 Sampling Techniques and Data</b>	
<p><b>Sampling Techniques</b></p> <p><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to</i></p>	<ul style="list-style-type: none"> <li>The Nebo and Babel deposits were sampled using diamond drill holes (DD) and Reverse Circulation (RC) drill holes on a nominal spacing of 50 m x 100 m at Nebo and on a nominal spacing of 100 m x 100 m at Babel.</li> <li>Cassini completed a total of 91 RC drill holes for 13 956 m and 4 DD drill holes for 466.5 m at Nebo; and a total of 68 RC drill holes for 11 209 m and 6 DD drill holes for 775.2 m at Babel.</li> <li>Previous drilling completed by WMC and BHP Billiton included diamond drilling and reverse circulation. A total of 33 DD and 2 RC drill holes were included in the Resource for Nebo and a total of 54 DD and 3 RC at Babel.</li> </ul>



JORC Code Assessment Criteria	Comment
<p><i>obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<ul style="list-style-type: none"> <li>• Holes were generally angled towards grid north at 60 degrees (Nebo) and at 70 degrees (Babel) dip angles to optimally intersect the mineralised zones.</li> <li>• Drill hole locations were picked up and downhole surveyed by survey contractors. Diamond core and RC drilling was used to delineate the resource. The RC samples have been obtained by a cone splitter.</li> <li>• Diamond core was used to obtain high quality samples that were logged for lithological, structural, density and other attributes.</li> <li>• Sampling for drilling post 2014 was carried out under Cassini protocols and QA procedures as per industry best practice.</li> <li>• Historical QA procedures and QC results for the WMC and BHP Billiton drilling have been documented in various internal reports. In general, the reports document ‘industry standard’ QA procedures and acceptable QC results during the reported periods.</li> <li>• Based on an assessment of the past resource reports, historical drilling results and the recent drilling by Cassini, Golder considers the dataset to be acceptable for use in Mineral Resource estimation.</li> <li>• Diamond core is HQ and NQ2 size, sampled on visible variation in rock type and range from 0.05m to 2.0m. Half core appears to have been routinely analysed, and in some cases a further 25% of the core analysed (quarter core). Samples were crushed, dried and pulverised (total prep) to produce a sub sample for a combination of Fusion XRF, Four Acid Digest ICP and Fire Assay methods.</li> <li>• RC drilling was used to obtain 1 m samples for Nebo and 2 m samples for Babel. From which approximately 3 kg was pulverised (total prep) to produce a sub sample for analysis. The analytical suite consisted of a combination of fused bead X-ray fluorescence (for whole rock elements Si, Al, Fe, Ti, Ca, Na, K, Mg, P, S, Zr, Mn, Cr, and V), four acid digest (hydrochloric, nitric, hydrofluoric and perchloric acid) followed by an ICP- AES and ICP-MS finish (for Co, Cu, Zn, Ni, As, Nb and Y), and fire assay with a silver secondary collector and ICP-MS finish for Pt, Pd and Au. Loss on ignition (LOI) was measured gravimetrically at 1000°C.</li> </ul>



JORC Code Assessment Criteria	Comment
<p><b>Drilling Techniques</b></p> <p><i>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.).</i></p>	<ul style="list-style-type: none"> <li>At Nebo, diamond drilling accounts for 45% of the drilling and comprises HQ and NQ2 sized core. At Babel, diamond drilling accounts for 70% of the drilling and comprises HQ and NQ2 sized core.</li> <li>RC drilling comprises 140 mm diameter face sampling hammer drilling. Hole depths range from 42 to 330 m.</li> <li>For Cassini drilling, diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Historical drill core was orientated in a similar method.</li> </ul>
<p><b>Drill Sample Recovery</b></p> <p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<ul style="list-style-type: none"> <li>For Cassini drilling, diamond core and RC recoveries are visually logged for every hole and recorded in the database. Actual recoveries for RC drilling were calculated for the first two drill holes for each rig and for every tenth hole thereafter. Overall recoveries are &gt;95% and there have been no significant sample recovery problems.</li> <li>Of the 87 historical diamond drill holes that are used in resource, Cassini has confirmed that 37 DD holes had recovery details recorded. Cassini is not aware of recovery records for the remaining holes.</li> <li>For Cassini drilling, diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. RC samples are routinely checked for recovery, moisture and contamination.</li> <li>Cassini is not aware of the historical drilling practices employed to maximise recoveries.</li> <li>The style of the mineralisation and the consistency of the mineralised intervals are considered to preclude any issue of sample bias due to material loss or gain.</li> </ul>
<p><b>Logging</b></p> <p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.), photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<ul style="list-style-type: none"> <li>Drill core and chip samples have been geologically logged and the level of understanding of these variables has increased over time.</li> <li>Logging of diamond core and RC samples at Nebo and Babel recorded lithology, mineralogy, mineralisation, structural (DDH only), weathering, colour and other relevant features of the samples. Logging is both qualitative (e.g. colour) and semi-quantitative (e.g. mineral percentages). Core was photographed in both dry and wet form.</li> </ul>



JORC Code Assessment Criteria	Comment
<p><b>Sub-Sampling Techniques and Sample Preparation</b></p> <p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<ul style="list-style-type: none"> <li>All drill holes were logged in full.</li> <li>Core for Nebo and Babel was cut in half and half core submitted as a first pass analysis. In some cases, further quarter core was analysed.</li> <li>RC samples were collected on the rig using cone splitters. All samples in mineralised zones were dry.</li> <li>The sample preparation of RC samples for Nebo and Babel follows industry best practice in sample preparation involving oven drying, followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 90% passing 75 micron.</li> <li>The sample methodologies for diamond core are identical, with the addition of coarse crushing of the half core sample prior to pulverisation.</li> </ul>
<p><b>Quality of Assay Data and Laboratory Tests</b></p> <p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>Hand held FPXRF assay results are included in the database and have been used in the resource estimate where no laboratory results are available. The majority of FPXRF data used are in intervals below the cut-off grade.</li> </ul> <p><u>Cassini drilling</u></p> <ul style="list-style-type: none"> <li>Sample preparation for fineness were carried by the laboratory as part of their internal procedures to ensure the grind size of 90% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures.</li> <li>Certified reference materials, having a good range of metal values, were inserted blindly and at a rate of every 20th sample. Results highlight that sample assay values are accurate and that contamination has been contained.</li> <li>Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits.</li> </ul> <p><u>Historical drilling</u></p> <ul style="list-style-type: none"> <li>Previous operators employed QAQC procedures involving the use of certified reference materials. These procedures have varied over the life of the project. Minor evidence for assay bias and contamination has been observed.</li> </ul>





JORC Code Assessment Criteria	Comment
<p><b>Verification of Sampling and Assaying</b></p> <p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<ul style="list-style-type: none"> <li>• Both the Exploration Manager and the Technical Director of Cassini have viewed the RC chip samples and the historical drill core.</li> <li>• In 2016 Cassini twinned 2 RC holes at Nebo and 3 RC holes at Babel with PQ diamond drilling. Analysis of the results suggested no particular bias in either types of samples.</li> <li>• Cassini collected data for the West Musgrave Project using a set of standard Field Marshal Templates on laptop computers using lookup codes. The information was sent to Geobase Australia for validation and compilation into a SQL database server.</li> <li>• Previous operators collected data electronically and stored it on an acQuire database.</li> <li>• No adjustments or calibrations were made to any assay data used in either estimate.</li> </ul>
<p><b>Location of Data Points</b></p> <p><i>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p><u>Cassini drilling</u></p> <ul style="list-style-type: none"> <li>• Hole collar locations were surveyed by MHR Surveyors of Cottesloe using RTK GPS with the expected relative accuracy compared to the Control Point established by MHR. Expected accuracy is <math>\pm 5\text{cm}</math> for easting, northing and elevation coordinates.</li> <li>• Downhole surveys were completed every 5m using Reflex gyroscopes after hole completion by McKay Drilling. Stated accuracy is <math>\pm 0.25^\circ</math> in azimuth and <math>\pm 0.05^\circ</math> in inclination.</li> <li>• A north-seeking gyroscope was used to pick up the starting azimuth and dip and this data was used to process the Reflex gyroscope data.</li> </ul> <p><u>Historical drilling</u></p> <ul style="list-style-type: none"> <li>• Previous operators surveyed drill holes by handheld and/or differential GPS. Differential GPS positions have reported accuracy of <math>\pm 5\text{cm}</math> for easting, northing and elevation coordinates. Accuracy of handheld GPS is unknown.</li> <li>• All drill holes were surveyed downhole by single shot downhole camera. Many of the drill holes have substantial deviation from the initial azimuth which is believed to be the effects of magnetic minerals within certain geological units. The reliability of the historical downhole surveying is considered poor.</li> <li>• The grid system for the West Musgrave Project is MGA_GDA94, Zone 52.</li> </ul>



JORC Code Assessment Criteria	Comment
	<ul style="list-style-type: none"> <li>Topographic control was provided by a LIDAR survey commissioned by Cassini in 2016.</li> </ul>
<p><b>Data Spacing and Distribution</b></p> <p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<ul style="list-style-type: none"> <li>The nominal drill hole spacing in the core of the deposit at Nebo is 50 m (northing) by 100 m (easting) and at Babel is 100 m (northing) by 100 m (easting).</li> <li>The mineralised domains for Nebo and Babel have demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resources and Reserves, and the classifications applied under the 2012 JORC Code.</li> <li>Samples were been composited direct from the splitter to one (1) metre lengths for Nebo and two (2) metre lengths for Babel. Samples were adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).</li> </ul>
<p><b>Orientation of Data in Relation to Geological Structure</b></p> <p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<ul style="list-style-type: none"> <li>The Nebo and Babel deposits are drilled towards grid north at dips of 60° (Nebo) and at 70° (Babel) to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the deposit.</li> <li>To date, mineralisation orientation has been favourable for perpendicular drilling and sample widths are not considered to have added a sampling bias.</li> </ul>
<p><b>Sample Security</b></p> <p><i>The measures taken to ensure sample security.</i></p>	<ul style="list-style-type: none"> <li>For drilling completed by Cassini, the sample chain of custody is managed by Cassini. Samples for the West Musgrave Project are stored on site and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service.</li> <li>Whilst in storage the samples are kept in a locked yard. Tracking sheets track the progress of batches of samples.</li> <li>No information is available for historical drilling sample security.</li> </ul>
<p><b>Audits and Reviews</b></p> <p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<ul style="list-style-type: none"> <li>A review of the sampling techniques and data was carried out by CSA Global during September 2014. CSA Global considered the sampling techniques and data to be of sufficient quality to carry out resource estimation.</li> </ul>
<b>Section 2 Reporting of Exploration Results</b>	
<p><b>Mineral Tenement and Land Tenure Status</b></p> <p><i>Type, reference name/number, location and ownership</i></p>	<ul style="list-style-type: none"> <li>Nebo is located wholly within Mining Lease M69/0074. Babel is located Mining Leases</li> </ul>



JORC Code Assessment Criteria	Comment
<p><i>including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></p>	<p>M69/0072 and M69/0073. Cassini entered into an agreement to acquire 100% of the leases comprising the West Musgrave Project (M69/0072, M69/0073, M69/0074, M69/0075, E69/1505, E69/1530, E69/2201, E69/2313, E69/3412, E69/3169, E69/3163, E69/3164, E69/3165, E69/3168 and P69/64), over which the previous operator retains a 2% NSR. The tenement sits within Crown Reserve 17614.</p> <ul style="list-style-type: none"> <li>• The West Musgrave Project is subject to an earn-in and joint venture agreement with OZ Minerals Ltd.</li> <li>• All tenements are in good standing and have existing Aboriginal Heritage Access Agreements in place. No Mining Agreement has been negotiated.</li> </ul>
<p><b>Exploration Done by Other Parties</b></p> <p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<ul style="list-style-type: none"> <li>• Previous exploration has been conducted by BHP Billiton and WMC. The work completed by BHP Billiton and WMC is considered by Cassini to be of a high standard.</li> </ul>
<p><b>Geology</b></p> <p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<ul style="list-style-type: none"> <li>• The deposits are located within the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt. The Nebo and Babel deposits are hosted in mafic intrusions of the Giles Complex (1068Ma) that has intruded into amphibolite facies orthogneiss country rock.</li> <li>• Mineralisation is hosted within tubular chonolithic gabbro-norite bodies and are expressed primarily as broad zones of disseminated sulphides and co-magmatic accumulations of, matrix to massive and breccia sulphides.</li> </ul>
<p><b>Drill hole information</b></p>	<ul style="list-style-type: none"> <li>• Not applicable. This Table relates to the reporting of the Mineral Resource estimates.</li> </ul>
<p><b>Data aggregation methods</b></p>	<ul style="list-style-type: none"> <li>• For the resource estimate, samples returned with below detection limit grades are replaced with half the detection limit.</li> <li>• No metal equivalents used or stated</li> </ul>
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<ul style="list-style-type: none"> <li>• Mineralisation at Nebo-Babel is a shallow dipping, south-westerly plunging body of variably mineralised mafic rock. Mineralisation is generally intersected with close to true-width down-hole lengths.</li> </ul>
<p><b>Diagrams</b></p>	<ul style="list-style-type: none"> <li>• Not applicable. Exploration results have previously been reported. This Table relates to the reporting of the Mineral Resource estimates.</li> </ul>



JORC Code Assessment Criteria	Comment
<b>Balance reporting</b>	<ul style="list-style-type: none"> <li>Not applicable. Exploration results have previously been reported. This Table relates to the reporting of the Mineral Resource estimates.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Not applicable. Exploration results have previously been reported. This Table relates to the reporting of the Mineral Resource estimates.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>Further infill drilling is warranted to improve the confidence of the remaining inferred resources. Additional exploration drilling is also warranted to extend the known resource.</li> </ul>
<b>Section 3 Estimation and Reporting of Mineral Resources</b>	
<p><b>Database Integrity</b></p> <p><i>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.</i></p> <p><i>Data validation procedures used.</i></p>	<ul style="list-style-type: none"> <li>The drillhole database is maintained externally by Geobase Australia Pty Ltd. All data is sent directly to Geobase for compilation into a SQL database server. The database is regularly validated and checked</li> <li>Previous operators collected data electronically and stored it on an acQuire database.</li> <li>All data is regularly validated by Geobase and Cassini.</li> </ul>
<p><b>Site Visits</b></p> <p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<ul style="list-style-type: none"> <li>The Competent Person for the Mineral Resource data, Mr Greg Miles has visited site on many occasions in his capacity as Executive Director for Cassini.</li> <li>Mr Weeks has not visited the location.</li> </ul>
<p><b>Geological Interpretation</b></p> <p><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<ul style="list-style-type: none"> <li>Geological interpretation was completed by Cassini staff geologists. The geological interpretations were found to be of a high standard. Continuity of mineralisation is very good and is intimately associated with the brecciated contact of a mafic (gabbro-norite) intrusive into the surrounding orthogneiss host rock.</li> <li>The geological interpretation provided a sound foundation for interpretation of boundaries to the Ni-Cu mineralisation.</li> <li>Detailed geological logging in conjunction with the chemical assays has been used to identify individual lithological units during the interpretation process. Ni, Cu, S and lithology were plotted on drill hole traces to assist the interpretation.</li> <li>The disseminated mineralisation is closely associated with the brecciated gabbro-norite intrusive contact. Infill drilling has closely supported previous interpretations.</li> </ul>



JORC Code Assessment Criteria	Comment
	<ul style="list-style-type: none"> <li>Alternative interpretations are likely to materially impact on the Mineral Resource estimate on a local but not global basis.</li> <li>Geology has been the primary influence in controlling the Mineral Resource estimation. Wireframes have been constructed for the various lithological zones, host rock and oxidation state as determined by the geological logging and chemical assays.</li> <li>Continuity of geology and structures can be identified and traced between drillholes by visual, geophysical and geochemical characteristics. Breccia zones related to the mafic intrusion, and hosting a significant portion of the mineralisation, have been logged in the drill core and RC chips and have been modelled.</li> <li>Three dimensional wireframe modelling were carried out using Vulcan® software.</li> </ul>
<p><b>Dimensions</b></p> <p><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<ul style="list-style-type: none"> <li>The Nebo Mineral Resource is contained within an area defined by a strike length of 1 585 m and across- strike width of 1 170 m. All reported mineral resources lie within 280 m of surface.</li> <li>The Babel Mineral Resource is contained within an area defined by a strike length of 2 150 m and across- strike width of 1 415 m. All reported mineral resources lies within 790 m of surface.</li> </ul>
<p><b>Estimation and Modelling Techniques</b></p> <p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p> <p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulfur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p>	<ul style="list-style-type: none"> <li>The Mineral Resource area was separated into two separate deposits as follows: <ul style="list-style-type: none"> <li>Nebo</li> <li>Babel</li> </ul> </li> <li>Hard boundaries were placed between disseminated and massive sulphide domains which is consistent with the geological interpretation.</li> <li>Outlier data for Au and Pd has been cut to reduce their influence in the grade estimation process.</li> <li>Variography was completed for Ni, Cu, Co, Au, Pt, Pd, Ag, and S only on both deposits.</li> <li>A multiple-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not be met. The search parameters were based on the semi-variogram ranges and the drilling density.</li> <li>Ordinary kriging (OK) has been adopted for grade estimation for both the Nebo and Babel deposits.</li> </ul>



JORC Code Assessment Criteria	Comment
<p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></p>	<p>Unfolding process was used for grade interpolation due to the highly variable orientation of the mineralisation around the Nebo and Babel intrusive host rocks.</p> <ul style="list-style-type: none"> <li>• Statistical and geostatistical analysis was completed using Golder proprietary software. All geological modelling was completed using Vulcan software. Block model construction and grade interpolation was completed using Golder proprietary software then imported into Vulcan for reporting purposes.</li> <li>• The following Mineral Resource estimates have been completed previously.</li> <li>• 2008 – QG (Nebo, Babel); 2012 – Golder (Nebo, Babel); 2014 – Xstract (Babel only); 2015 – CSA Global (Nebo, Babel).</li> <li>• Golder completed various visual and statistical checks to validate modelling and grade interpolation. The global results are comparable with the reported OK models with localised differences as expected.</li> <li>• No mining has yet taken place at these deposits.</li> <li>• Co, Au, Pt and Pd have been estimated and are assumed to be recoverable as part of the Ni-Cu recovery processes.</li> <li>• Potentially deleterious As, Fe<sub>2</sub>O<sub>3</sub>, MgO and S have been estimated into the model to assist with future metallurgical work and mining studies, but are not reported at this stage.</li> <li>• At Nebo, a 25 m E by 20 m N by 5 m RL parent cell size was used with sub-celling to 2.5 m E by 2.5 m N by 2.5 m RL to honour wireframe boundaries.</li> <li>• At Babel, a 25 m E by 25 m N by 5 m RL parent cell size was used with sub-celling to 2.5 m E by 2.5 m N by 2.5 m RL to honour wireframe boundaries.</li> <li>• The block size is considered to be appropriate given the dominant drill hole spacing and style of mineralisation.</li> <li>• No assumptions were made regarding selective mining units.</li> <li>• The geometry of the brecciated gabbro-norite formed the basis for mineralisation interpretations.</li> <li>• Hard boundaries for estimation were used between mineralised lithological domains and also</li> </ul>





JORC Code Assessment Criteria	Comment
	<p>for continuous massive sulphide domains within the Nebo deposit.</p> <ul style="list-style-type: none"> <li>• Outlier data for Au and Pd has been cut to reduce their influence in the grade estimation process.</li> <li>• No reconciliation data is available as no mining has taken place.</li> </ul>
<p><b>Moisture</b></p> <p><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></p>	<ul style="list-style-type: none"> <li>• Tonnages have been estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
<p><b>Cut-off Parameters</b></p> <p><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></p>	<ul style="list-style-type: none"> <li>• At Babel, the disseminated mineralisation was wireframed using a nominal 1% S cut-off grade. This equated to approximately 0.2% Ni and 0.2% Cu in fresh rock.</li> <li>• At Nebo, all blocks in mineralised lithology units and within a radius of 30 m (N-S) by 60 m (E-W) by 10 m (vertical) from samples &gt;0.2% Ni.</li> <li>• The massive sulphide zones were delineated using the logged geology and a nominal 10% S cut-off grade.</li> <li>• The Mineral Resource has been reported above a cut-off grade of 0.25% Ni based on preliminary mining studies.</li> </ul>
<p><b>Mining Factors or Assumptions</b></p> <p><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>• It has been assumed that these deposits will be amenable to open cut mining methods, and are economic to exploit with this methodology at the reported average model grades.</li> <li>• A minimum mining width of 2 m was applied (downhole composite width). No other mining assumptions were made.</li> <li>• Several zones of internal dilution, below the defined cut-off grade for wireframing mineralisation, were wireframed and removed from the estimate.</li> </ul>
<p><b>Metallurgical Factors or Assumptions</b></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>• Preliminary metallurgical testwork on broad composite zones of both Nebo and Babel mineralisation has shown that acceptable recoveries of both Ni and Cu can be achieved using conventional extraction methods. More detailed metallurgical testwork is ongoing.</li> </ul>



JORC Code Assessment Criteria	Comment
<p><b>Environmental Factors or Assumptions</b></p> <p><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<ul style="list-style-type: none"> <li>No assumptions regarding possible waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions.</li> </ul>
<p><b>Bulk Density</b></p> <p><i>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.</i></p> <p><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<ul style="list-style-type: none"> <li>Within the resource area, the database contained a total of 14 011 density measurements (3 541 at Nebo, 10 470 at Babel).</li> <li>In-situ dry bulk density values have been calculated for the modelled mineralisation based on linear regression formulas for fresh material only. This is based on reasonable correlations having been found between measured bulk density results and sulphur (S).</li> <li>Density measurements were calculated using the water immersion method from drill core across the deposits and from the various rock types and weathering zones.</li> <li>Water immersion density data was used to develop a regression between density and % S for the fresh mineralised material. Average densities (derived from density measurements with less than 1% S) were applied to oxide material as well as the various lithological domains based on measured densities.</li> </ul>
<p><b>Classification</b></p> <p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p> <p><i>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. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.</i></p>	<ul style="list-style-type: none"> <li>Classification of the Mineral Resource estimates into both Indicated and Inferred categories was carried out taking into account the level of geological understanding of the deposit, quality of samples, density data and drill hole spacing.</li> <li>The classification reflects areas of lower and higher geological confidence in mineralised lithological domain continuity based the intersecting drill sample data numbers, spacing and orientation. Overall mineralisation trends are reasonably consistent within the various lithological types over numerous drill sections.</li> <li>The Mineral Resource estimate appropriately reflects the view of the relevant Competent Person.</li> </ul>



JORC Code Assessment Criteria	Comment
<p><b>Audits or Reviews</b></p> <p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<ul style="list-style-type: none"> <li>Internal audits were completed by Golder which verified the technical inputs, methodology, parameters and results of the estimate.</li> <li>No external audits have been undertaken.</li> </ul>
<p><b>Discussion of Relative Accuracy/Confidence</b></p> <p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<ul style="list-style-type: none"> <li>The Mineral Resource accuracy is communicated through the classification assigned to various parts of the deposit. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.</li> <li>The Mineral Resource statement relates to global estimates of in-situ tonnes and grade.</li> <li>The deposits have not, and are not currently being mined.</li> </ul>

## Material Assumptions used in the West Musgrave Scoping Study

Template based on Section 4, Table 1 of JORC Code (2012)

JORC Code assessment criteria	Comment
<p><i>Mineral Resource estimate for conversion to Ore Reserves</i></p> <ul style="list-style-type: none"> <li><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></li> <li><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></li> </ul>	<ul style="list-style-type: none"> <li>No Ore Reserves are estimated or used as part of the West Musgrave Scoping Study.</li> <li>For the purposes of this Scoping Study, Nebo and Babel Mineral Resource Estimates completed by Golder Associates are reported herein have been used.</li> <li>All relevant Table 1 criteria for the Nebo and Babel Mineral Resource Estimate have been listed in the preceding sections.</li> <li>Succoth Deposit: Succoth Deposit Mineral Resource as published in the ASX announcement dated 7 December 2015.</li> </ul>
<p><i>Site visits</i></p> <ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>The following persons have contributed to this Scoping Study:</li> <li>Mr Gregory Miles (Cassini Resources Limited) – Mr Miles has visited site and understands details associated with this site. Mr Miles is a Geologist by profession and is the Executive Director for Cassini Resource Limited.</li> <li>Dr Zoran Seat (Cassini Resource Limited) – Dr</li> </ul>



JORC Code assessment criteria	Comment
	<p>Seat has visited site and understands details associated with this site. Dr Seat is a Geologist by profession and is the Exploration Manager for Cassini Resource Limited.</p> <ul style="list-style-type: none"><li>• Mr Paul Howe and Mr Michael Short (CDM Smith) – Messrs Howe and Short are Principal and Project Hydrogeologists, respectively, who have coordinated and supervised ground water exploration and assessment activities for the West Musgrave Project. CDM Smith were engaged as an independent consultant by Cassini Resource Limited to assist with the Scoping Study. Mr Short has visited site and understand details associated with the site. Mr Howe has not visited site and has completed work based on information provided by Cassini Resource Limited.</li><li>• Mr Peter Allen (GR Engineering Services Limited) – Mr Allen is the Manager - Process &amp; Technical Services who has coordinated the metallurgical study testwork and process flow sheet design completed as part of this Scoping Study. GR Engineering Services Limited were engaged as an independent consultant to assist with the Scoping Study. Mr Allen has not visited site and has completed work based on information provided by Cassini Resource Limited.</li><li>• Mr Stewart Watkins (GR Engineering Services Limited) – Mr Watkins is the Study Manager who has coordinated the capital and operating cost estimates for the ore pressing facility and non-process infrastructure deemed to be required for the site as part of this Scoping Study. GR Engineering Services Limited were engaged as an independent consultant to assist with the Scoping Study. Mr Watkins has not visited site and has completed work based on information provided by Cassini Resource Limited.</li><li>• Mr John Battista (Mining Plus) – Mr Battista is the Principal Mining Consultant who has coordinated the mining and resource optimisation work associated with the Nebo and Babel deposits as part of this Scoping Study. Mining Plus were engaged as an independent consultant to assist with the Scoping Study. Mr Battista has not visited site and has completed work based on information provided by Cassini Resource Limited.</li><li>• Mr Graham Smith (KPMG) – Mr Smith is the Associate Director who has coordinated the compilation of the financial model for the West Musgrave Project as part of this Scoping Study. KPMG were engaged as an independent consultant to assist with the Scoping Study. Mr Smith has not visited site and has completed work based on information provided by Cassini Resource Limited.</li></ul>



JORC Code assessment criteria		Comment
Study status	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<ul style="list-style-type: none"> <li>The type and level of study is a Scoping Study as defined in Section 38 of the JORC Code, 2012 Edition.</li> <li>The Scoping Study has not been used to convert Mineral Resources to Ore Reserves. Modifying Factors based on information currently available have been applied to the Scoping Study.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Cut-off grades, expressed as wt% nickel were determined by dividing the estimated operation costs per tonne of ore treated by the revenue per tonne of nickel and copper produced.</li> <li>The following inputs were used to estimate revenue per tonne of nickel and copper produced: <ul style="list-style-type: none"> <li>Nickel price: US\$15,675 per tonne</li> <li>Copper price: US\$6,504 per tonne</li> <li>Cobalt price: US\$14.20 per pound</li> <li>Palladium price: US\$769 per ounce</li> <li>Gold: US\$1292 per troy ounce</li> <li>USD:AUD exchange rate of \$0.74</li> <li>Standard WA state royalties for nickel and copper.</li> <li>2% NSR royalty payable to BHP (former project owner)</li> </ul> </li> <li>The following inputs were used to estimated operating cost per tonne of ore treated for open pit mine: <ul style="list-style-type: none"> <li>Mining cost</li> <li>Processing cost</li> <li>All applicable royalty charges</li> <li>Concentrate transport costs</li> </ul> </li> <li>General and administration costs</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such</li> </ul>	<ul style="list-style-type: none"> <li>No conversion of the Mineral Resource to Ore Reserves.</li> <li>Initial optimisations were completed with no minimum nickel and/or grades specified, and based on cash flows, where a block providing a nett surplus is treated as feed and those not providing cash surplus as waste. The final optimisations were completed with fixed metallurgical recoveries for each geological domain, as determined by the testwork completed as part of the Scoping Study. The open pits have been developed with 80m minimum width cutbacks to determine final pit selection based on maximum discounted cash flow. The cutbacks have been prioritised by value per</li> </ul>





JORC Code assessment criteria		Comment
	<p><i>as pre-strip, access, etc.</i></p> <ul style="list-style-type: none"> <li>• <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></li> <li>• <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></li> <li>• <i>The mining dilution factors used.</i></li> <li>• <i>The mining recovery factors used.</i></li> <li>• <i>Any minimum mining widths used.</i></li> <li>• <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></li> <li>• <i>The infrastructure requirements of the selected mining methods.</i></li> </ul>	<p>tonne in each cut back and integrated into an annual schedule to maximise discounted value. All work has been completed by mining consultants Mining Plus.</p>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>• <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></li> <li>• <i>Whether the metallurgical process is well-tested technology or novel in nature.</i></li> <li>• <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></li> <li>• <i>Any assumptions or allowances made for deleterious elements.</i></li> <li>• <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></li> <li>• <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></li> </ul>	<ul style="list-style-type: none"> <li>• The metallurgical process proposed is a conventional sequential flotation process as typically used in the Australian and North American nickel-copper mining industry. The process is inclusive of conventional crushing, milling and classification circuits followed by two stages of conventional flotation plus dewatering and filtration to produce separate nickel and copper concentrates.</li> <li>• Metallurgical data relating to Nebo and Babel deposits has been determined from the testwork completed as part of this Scoping Study and historical metallurgical data. Metallurgical performances were determined by independent consultants GR Engineering Services Limited.</li> <li>• Further metallurgical testwork will be completed a study work progresses to determine variability within Nebo and Babel deposits and determine if further improvements can be achieved to metallurgical recoveries through application of different reagent regimes and/or variations within the existing flow sheet.</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• <i>The status of studies of potential environmental impacts of the mining and</i></li> </ul>	<ul style="list-style-type: none"> <li>• Environmental base line studies have been undertaken over the mine foot print. Further seasonal studies will be conducted during the PFS.</li> </ul>





JORC Code assessment criteria		Comment
	<p><i>processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<p>Waste Rock Characterisation will be undertaken during the PFS. The environmental approvals process will commence during the PFS.</p>
Infrastructure	<ul style="list-style-type: none"> <li><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Project has limited existing mining infrastructure. Sufficient land is available within the project for all mining and processing infrastructure. A road will be required to link the site with the Warburton-Jameson Road. The Scoping Study has demonstrated reasonable potential for sufficient water resources to be utilised for the process plant and associated infrastructure. Power will be generated on site and the Scoping Study has demonstrated that this will be partially obtained through renewable energy sources.</li> </ul>
Costs	<ul style="list-style-type: none"> <li><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></li> <li><i>The methodology used to estimate operating costs.</i></li> <li><i>Allowances made for the content of deleterious elements.</i></li> <li><i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.</i></li> <li><i>The source of exchange rates used in the study.</i></li> <li><i>Derivation of transportation charges.</i></li> <li><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></li> <li><i>The allowances made for royalties payable, both Government and private.</i></li> </ul>	<ul style="list-style-type: none"> <li>Capital cost estimates for all process and non-process infrastructure have been determined by GR Engineering Services Limited. Cost estimates are based on conceptual designs for mines, process plant and site non-process infrastructure and a combination of quotations, factored estimates and cost data from similar projects and operations. The capital cost estimates are considered appropriate for the Scoping Study purposes.</li> <li>Operating cost estimates have been determined by Mining Plus for mining costs, GR Engineering Services Limited for processing and general and administration costs.</li> <li>Mining cost estimates have been derived from quotations obtained either by Cassini Resources Limited and data held by Mining Plus from similar size operations.</li> <li>Processing costs have been estimated by GR Engineering Services Limited using recent consumable costs (budget quotations) and data from operations with very similar process flow sheet.</li> <li>The total operation cost has been derived by GR Engineering Services Limited.</li> <li>There are no deleterious elements in the nickel or copper concentrates.</li> <li>The commodity and exchange rate assumptions used in the Scoping Study were based on the long term analyst consensus data the AUD: USD exchange rate being 0.74. Nickel and copper metal prices are shown below.</li> <li>All transportation costs were estimated by Qube Bulk Pty Ltd.</li> <li>All nickel and copper treatment and refining charges were derived by W.H. Cunningham and</li> </ul>



JORC Code assessment criteria		Comment
		<p>Associated based on the indicative offtake terms.</p> <ul style="list-style-type: none"> <li>All standard WA state royalties applicable to the project have been allowed for in the Scoping Study in addition to 2% NSR royalty payable to BHP (former project owner)</li> </ul>
Revenue factors	<ul style="list-style-type: none"> <li><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></li> <li><i>he derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></li> </ul>	<ul style="list-style-type: none"> <li>For this Scoping Study nickel and copper concentrate specifications were based on the results from the metallurgical testwork. Indicative off-take terms were obtained from tier 1 parties both in Australia and overseas and these take into account cobalt, palladium and gold byproduct credits.</li> <li>Nickel price of US\$15,675 per tonne and a copper price of US\$6,504 per tonne were used.</li> <li>The marketing study and assumptions were completed by W.H Cunningham and Associates and reviewed by KPMG. All metal prices are based on long term consensus.</li> </ul>
Market assessment	<ul style="list-style-type: none"> <li><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></li> <li><i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></li> <li><i>Price and volume forecasts and the basis for these forecasts.</i></li> <li><i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></li> </ul>	<ul style="list-style-type: none"> <li>Cassini engaged respected nickel and copper marketing expert W. H. Cunningham and Associates to identify potential customers and pricing of West Musgrave products. Details of these investigations are commercial in confidence</li> </ul>
Social	<ul style="list-style-type: none"> <li><i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></li> </ul>	<ul style="list-style-type: none"> <li>Cassini has a good working relationship with the Yarnangu People, represented by the Ngaanyatjarra Land Council. Dialogue with these groups is ongoing. Cassini is currently operating under an exploration agreement, but will require a mining access agreement prior to development.</li> </ul>
Other	<ul style="list-style-type: none"> <li><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></li> <li><i>Any identified material naturally occurring risks.</i></li> <li><i>The status of material legal agreements and marketing arrangements.</i></li> <li><i>The status of governmental agreements and approvals critical to the viability of the</i></li> </ul>	<ul style="list-style-type: none"> <li>No Ore Reserves have been classified.</li> <li>The project is subject to a range of naturally occurring risks typical of a project at this stage of development</li> <li>All marketing and legal agreements are preliminary and not final</li> <li>No government agreements or approvals are currently in place. Cassini believes that all necessary approvals can be received within a two year time frame while development studies are underway.</li> </ul>



JORC Code assessment criteria		Comment
	<p><i>project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	
Classification	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> <li>• <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no Ore Reserves at Scoping Study Level</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Ore Reserve estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable as no Ore Reserves at Scoping Study Level</li> </ul>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions</i></li> </ul>	<ul style="list-style-type: none"> <li>• No Ore Reserve estimate has been completed as a result of Scoping Study.</li> <li>• Metallurgical recoveries have been based on metallurgical testwork completed as part of the Scoping Study. Historical testwork data on Nebo and Babel deposits have also been taken into account.</li> <li>• Costs are based on budget quotations provided to independent consultants involved in the Scoping Study, factored estimates and/or cost data from similar operations.</li> <li>• Cost estimate accuracy for the Scoping Study is considered to be in the order of <math>\pm 35\%</math>.</li> </ul>



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<p><i>made and the procedures used.</i></p> <ul style="list-style-type: none"><li>• <i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></li><li>• <i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li></ul>	