OZ Minerals Limited

WEST MUSGRAVE PROJECT

Nebo-Babel Deposits

Mineral Resource Statement and Explanatory Notes

As at 12 April 2019

WEST MUSGRAVE MINERAL RESOURCE STATEMENT – 12 APRIL 2019

The West Musgrave 2019 Mineral Resource Statement relates to an updated Mineral Resource estimate for the Nebo and Babel nickel-copper deposits, located within the West Musgrave Project area in Western Australia that were discovered by WMC Resources in 2000. The deposits are located approximately 1,300 kilometres northeast of Perth near the border with South Australia and the Northern Territory (Figure 1). The Nebo Deposit (Nebo) lies approximately 1.5 km northeast of the Babel Deposit (Babel) (Figure 2). Independent models were created for each deposit.

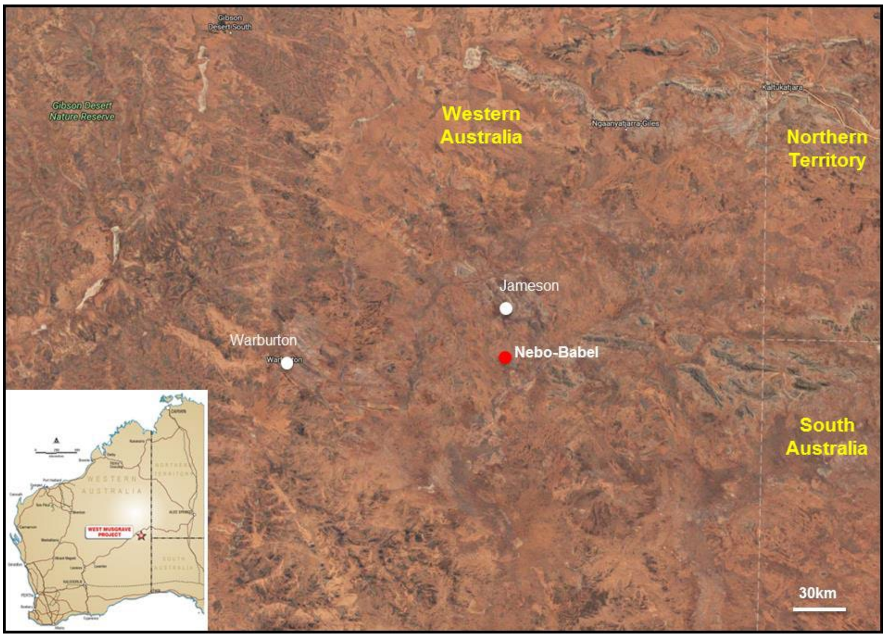

Figure 1: West Musgrave Project Location

Mineral Resource

The estimated Mineral Resource for the Nebo-Babel deposits is shown in Table 1. The Mineral Resource estimate has been reported in accordance with the 2012 edition of the JORC Code. The Mineral Resource estimate is based on data from 695 drill holes for a total of 16,558 2 m composited samples in mineralised domains. The Mineral Resource has been reported above a cut- off grade of 0.25% Ni based on results of the previous Further Scoping Study (FSS)[1]. Mineral Resources were further constrained

[1] See announcement titled "West Musgrave project to progress to Pre-Feasibility Study" released on 14 November 2017 and available at www.ozminerals.com/media/west-musgrave-project-to-progress-to-pre-feasibility-study/

within pit shells generated using a cut-off Net Smelter Return (NSR) of A$24/t, which is based on both the FSS results and updates from ongoing studies. The pit shells constructed utilised a 1.2 times multiplier (revenue factor) of OZ Minerals' accepted long term metal prices.

Table 1: Nebo-Babel Mineral Resource Estimate[2] as at 12 April 2019

Category*	Deposit	Tonnes (Mt)	Ni (%)	Cu (%)	Au ppm	Co ppm	Pd ppm	Pt ppm	Ni metal (kt)	Cu metal (kt)
Indicated	Babel	108	0.33	0.38	0.06	120	0.10	0.09	357	408
	Nebo	33	0.45	0.40	0.05	180	0.09	0.07	146	129
	Sub-total	**141**	**0.36**	**0.38**	**0.06**	**134**	**0.10**	**0.08**	**503**	**537**
Inferred	Babel	96	0.34	0.38	0.07	120	0.11	0.09	327	364
	Nebo	2	0.36	0.39	0.04	170	0.08	0.07	7	7
	Sub-total	**98**	**0.34**	**0.38**	**0.06**	**121**	**0.11**	**0.09**	**334**	**371**
Ind + Inf	Babel	204	0.34	0.38	0.06	120	0.10	0.09	685	772
	Nebo	34	0.44	0.40	0.04	179	0.09	0.07	153	136
Total		**238**	**0.35**	**0.38**	**0.06**	**129**	**0.10**	**0.09**	**838**	**908**

* Mineral Resources reported within a A$24 NSR pit shell (details outlined below) and at 0.25% Ni Cut-off.

Changes in the 2019 Mineral Resource Estimate

The previous estimate for the Nebo-Babel deposits was conducted in 2017 by Golder Associates Pty Ltd[3]. The 2019 update included holes drilled in 2018 consisting of 73 diamond holes (DD) and 263 Reverse Circulation holes (RC) drilled across both deposits. Drilling has continued and a data cut-off at 14th of December 2018 was utilised for the estimate. The 2019 and 2017 Babel estimates compared very closely at a range of cut-offs. For Nebo, the current estimate has a minor decrease in estimated Ni and Cu grades at the reportable cut-off, and less tonnes at higher cut-off grades. This is due to the impact of recent infill drilling, in particular on the Massive Sulphide zones, and the subsequent domaining and estimation rationale used on this mineralisation type.

Approximately 30 Mt tonnes of Inferred Resources have been converted to Indicated, due to infill drilling, however overall tonnes have dropped for both deposits (15% overall) due to the previous Mineral Resource being reported by a Relative Level (RL) restriction as opposed to a NSR generated pit shell used for reporting this estimate. Furthermore, based on recent metallurgical studies, oxide mineralisation has not been reported in 2019, but was reported combined with sulphide mineralisation in 2017.

[2] Rounding error may impact totals.
[3] See announcement titled "West Musgrave project to progress to Pre-Feasibility Study" released on 14 November 2017 and available at www.ozminerals.com/media/west-musgrave-project-to-progress-to-pre-feasibility-study/

Drilling Techniques

At Nebo, diamond drilling accounts for 30% of the drilling and comprises PQ, HQ and NQ2 sized core. At Babel, diamond drilling accounts for 33% of the drilling and comprises PQ, HQ and NQ2 sized core. RC drilling comprises 140 mm diameter face sampling hammer drilling.

Sampling and Sub-Sampling Techniques

RC drilling was used to obtain 1 m samples for Nebo and 2 m samples for Babel from which 3 kg was pulverised to produce a sub sample for analysis. Diamond core is a combination of PQ, HQ and NQ2 size, sampled on visible variation in rock type and range from 0.05m to 2.0m. Core is cut on site with half core being routinely analysed.

The sample preparation of samples for Nebo and Babel follows industry best practice involving oven drying, followed by pulverisation of the entire sample using Essa LM5 grinding mills to a grind size of 90% passing 75 microns. Diamond core requires Boyd crushing after drying.

Sample Analysis Method

Samples were sent to the Bureau Veritas Perth laboratory. For 2018 drilling the analytical suite consisted of a combination of fused bead X-ray fluorescence (for whole rock elements including Co, Cu, Pb, Zn, Ni, As, Si, Al, Fe, Ca, Mg, S) 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. Prior to 2018 a four-acid digest (hydrochloric, nitric, hydrofluoric and perchloric acid) followed by an ICP-AES and ICP-MS finish was undertaken for Co, Cu, Zn, Ni and As.

Geology and Geological Interpretation

The Nebo-Babel deposits are hosted by a sub-horizontal, tube-shaped mafic intrusion which is classified as a gabbronorite. The mafic intrusion has a known extent of 5 kilometres, trends in an easterly direction, has a gentle 15 degree dip to the south and, in the case of Babel, a less than 10 degree plunge toward the southwest. (Figure 2). Babel and Nebo are separated by the steeply-dipping, north-south trending Jameson Fault. Babel occurs to the west of the fault and Nebo occurs to the east.

Babel consists of three main lithostratigraphic units, which are variably textured leucogabbronorite (VLGN) that forms the outer shell around mineralised gabbronorite (MGN), and barren gabbronorite (BGN) in the core of the intrusion. At Nebo, the main lithostratigraphic units are VLGN that forms an outer shell of the intrusion around barren gabbronorite, and oxide-apatite gabbronorite, which occurs in the core of the intrusion at the eastern end.

The Nebo-Babel deposits contain two main styles of mineralisation: Disseminated gabbronorite-hosted sulphides, which represent the bulk of the mineralisation, and Massive and breccia sulphides, which are a comparatively minor component of the overall sulphide inventory.

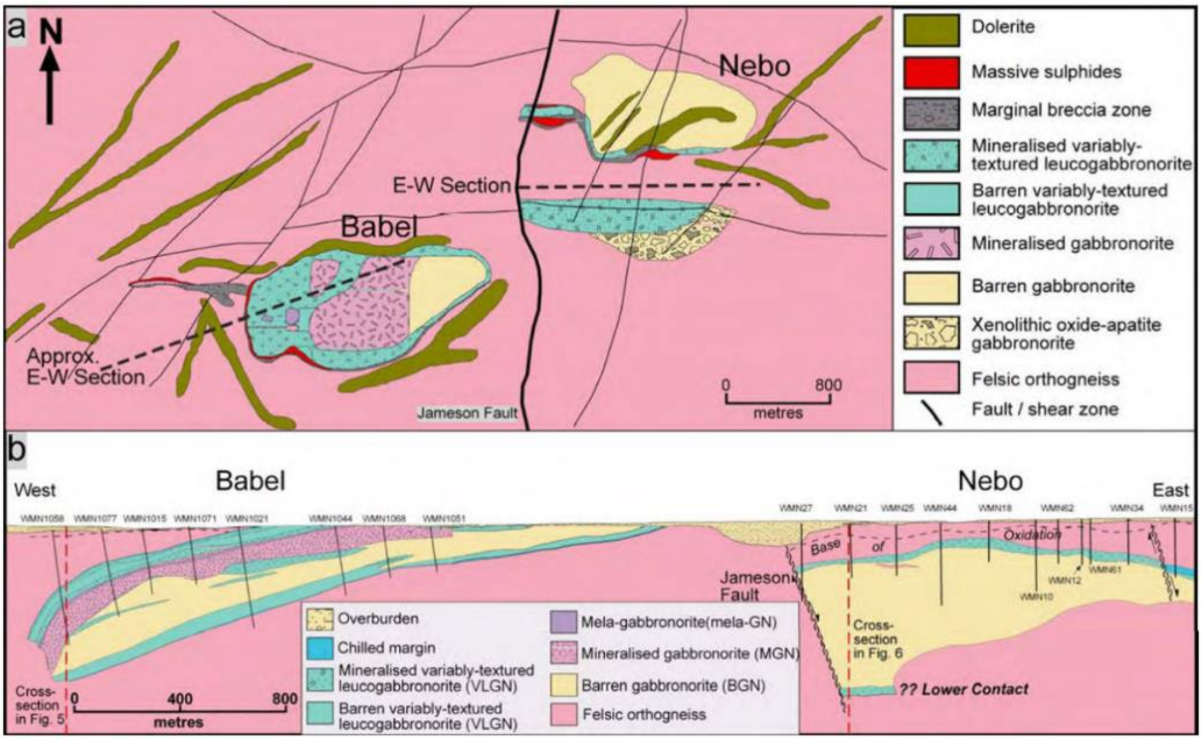

Figure 2: Geology of the Nebo-Babel deposit. (a) Plan and (b) Long-section

Interpretation and wireframes have been constructed for lithology (including dykes), weathering and estimation grade domains. Mineralisation is intimately associated with the brecciated contact of the gabbronorite intrusive into the surrounding orthogneiss host rock and, although there is a strong, almost exclusive relationship between lithology and mineralisation, it was determined to construct estimation grade domains to optimise the estimation. At Nebo, "high-grade" domains were constructed to model Massive Sulphide zones where continuity could be interpreted between sections and drill holes. Weathering surfaces were constructed for Oxide (OX), Pyrite-Violarite (PV), Transitional (TR) and Primary (PR) zones.

Estimation Methodology

Domain definition used a combination of assay data and geology logging, taking into consideration the lithological controls on the mineralisation, the mineralogy of nickel and copper, and the nickel and copper grades. A strong relationship exists between nickel and copper so constructed grade shells satisfied the requirements for both elements. Nickel/Copper mineralisation domains were also used for the estimation of Co, Au, Pt, Pd, Pb, Zn, As, Ca, Mg, S, Fe and Al. Hard boundaries were used across all domains.

For both deposits 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. Sub-cells were assigned parent cell grades.

Variograms were modelled for all elements in each of the main mineralised domains for both Nebo and Babel. The variogram model for the main grade domain was applied to the other minor grade domains/lenses. Ordinary Kriging (OK) was used for grade estimation. Vulcan Anisotropic Modelling was utilised to inform search ellipse and variogram axis orientations. Samples were composited to 2 m. The impact of very high-grade composites was managed using search restrictions for the main domains and top-cuts if required for the minor lenses.

Reasonable Prospects

The Mineral Resource has been reported above a cut-off grade of 0.25% Ni, which is based on results of the FSS supporting an open pit mining operation.

Mineral Resources were further constrained within pit shells generated using a cut-off NSR of A$24/t based on the FSS and ongoing studies. Costs include processing, administration, grade control and sustaining capital.

OZ Minerals' assumed long-term metal prices were multiplied by 1.2 to allow for potentially higher future revenue values. Table 2 below shows the assumed prices for Ni and Cu (prior to being multiplied by 1.2) and their metallurgical recoveries as contributors to NSR. For these pits, revenues from Au, Co, Pd and Pt were not included in the NSR, which together would contribute approximately 5% additional revenue based on assumptions from the ongoing study. The assumed exchange rate is 0.73 (AUD/USD) and price assumptions are drawn from OZ Minerals' life-of-mine (LOM) Corporate Economic Assumptions updated in Quarter 4 2018 and are the consensus values of major brokers.

Metallurgical assumptions are based on recent metallurgical test work as part of the ongoing studies and are broken down by weathering including Pyrite-Violarite (PV) and Transitional and Primary (TR/PR). PV mineralisation represents approximately 9% of the Mineral Resource and is further split by Massive (Mass) and Disseminated (Diss) mineralisation based on test work.

Table 2: Revenue Assumptions

Assumption	Price	Recovery %		
		Weathering PV-Diss	Weathering PV-Mass	Weathering TR/PR
Ni	7.89 US$/lb	35	56	65
Cu	2.96 US$/lb	84*	92*	91*

* Copper recovery is the sum of copper recovery in both the nickel and copper concentrate.

NSR is calculated on a block by block basis and also included royalties, concentrate payability, concentrate transport and penalties. Note that the NSR has only been used to generate pit shells for the purposes of the reasonable prosects test.

Based on the current understanding of oxide mineralisation recovery and economic impact, the stated Mineral Resource does not include oxide material.

Mining and Geotechnical

These deposits will be amenable to large open cut mining methods as demonstrated from the FSS. Geotechnical drilling and studies have been undertaken for both the FSS and ongoing studies.

Processing

Metallurgical test work on representative samples selected via a geometallurgical study has shown that a conventional crushing, grinding and flotation circuit would produce acceptable concentrate grades and metal recoveries as outlined in the FSS. Recent metallurgical test work, as part of the ongoing studies, has provided updated recoveries as outlined in Table 2 above. This test work has predicted lower recoveries for pyrite-violarite material which constitutes approximately 9% of the Mineral Resource.

Environment

Nebo is located wholly within Mining Lease M69/0074. Babel is located within Mining Leases M69/0072 and M69/0073.

Environmental baseline monitoring and land access negotiations are ongoing. There is currently no material change to the risk profile for regulatory approval, project water supply, materials handling and land access than was previously released in the FSS.

Mineral Resource Classification Criteria

The basis for Mineral Resource classification is underpinned by the robustness of the conceptual geological model, quality of data and the continuity of geology and grade relative to the arrangement of data.

Both deposits display reasonable to good geological/lithological continuity between drill sections and mineralisation is strongly correlated to lithology. The quality of the estimation of grades was assessed using the relative kriging variance, pass in which the estimate was made, slope of regression, distance to the nearest informing composite and number of holes used in the Ni and Cu estimates.

The confidences in the interpretations and estimate were then integrated, resulting in annealing of the classification in places. 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). Figure 3 below displays the classified models with drill holes.

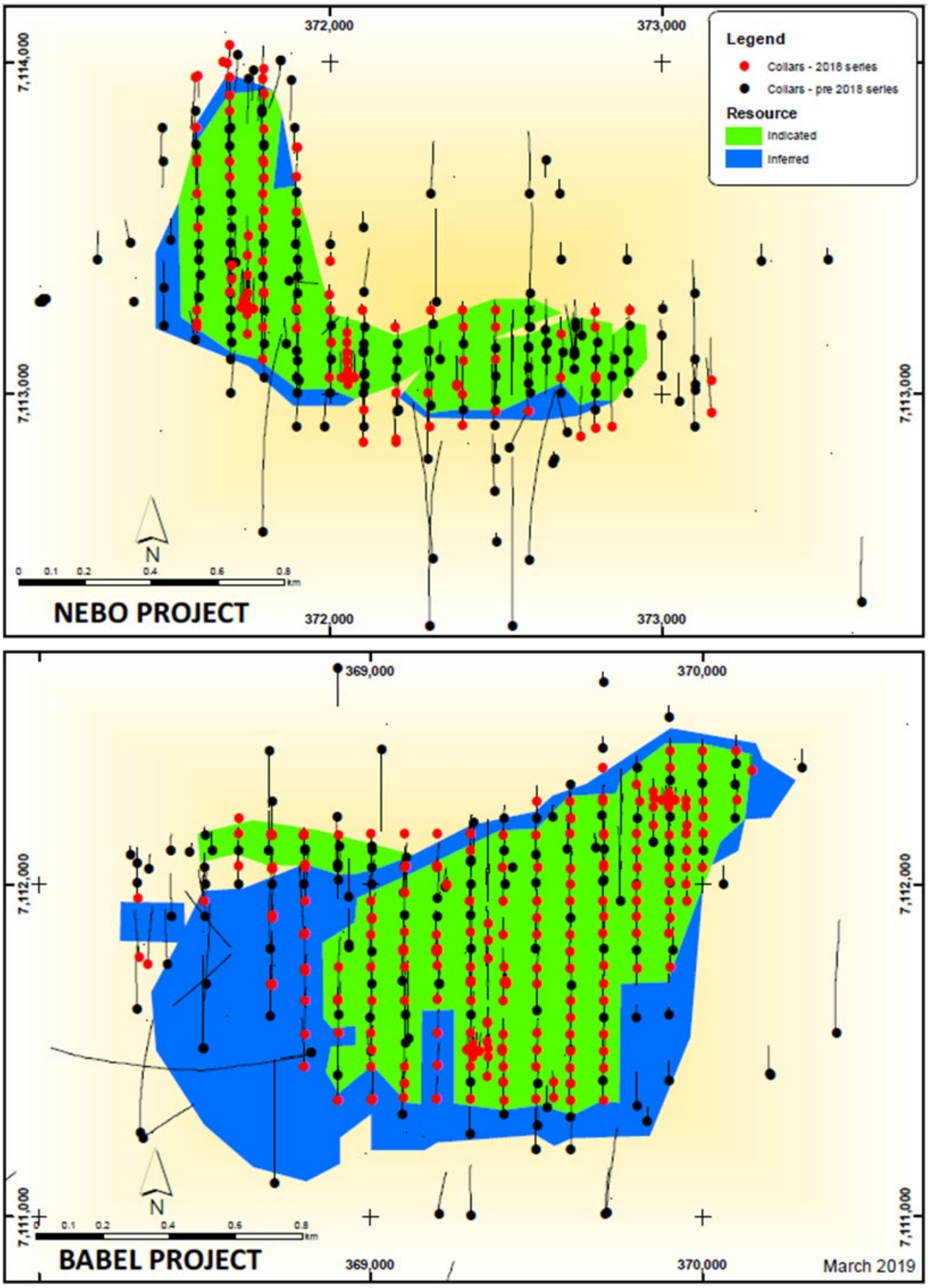

Figure 3: Classification of Mineral Resources displaying drill holes

Dimensions

The deposits geometry is generally flat lying to dipping towards the south. Limits of the Mineral Resource are listed in Table 3. Dimensions are based on Mineral Resources contained within reportable pit shells. Drilling has confirmed that mineralisation can extend beyond the dimensions stated below.

Table 3: Dimensions of the Mineral Resource

Deposit	Dimension	Minimum	Maximum	Extent (m)
Babel	Easting	368250	370270	2020
	Northing	7111110	7112460	1350
	RL	-60	470	530
Nebo	Easting	371460	372960	1500
	Northing	7112920	7113970	1050
	RL	240	470	230

JORC 2012 EDITION, TABLE 1

SECTION 1 Sampling Techniques and Data

Criteria	Comments
Sampling techniques	The Nebo and Babel deposits were sampled using diamond drill holes (DD) and Reverse Circulation (RC) drill holes. Drilling on the deposits commenced in the year 2000 undertaken by WMC and then BHP through until 2012. Cassini Resources Limited (Cassini) commenced drilling in 2014. During 2018 the West Musgrave Project was subject to an earn-in and joint venture agreement between Cassini and OZ Minerals Ltd (OZ Minerals) of which the latter holds the majority ownership. The joint venture (JV) manage all site activities. The previous estimate included holes drilled up until 2017. This estimate includes additional holes drill in 2018. The table below summarises drilling activities.

Phase	Deposit	Type	# Holes	# Meters
2018	Nebo	RC	88	14,071
		DD	21	3,840.5
	Babel	RC	175	29,621
		DD	52	5,218.5
2014-2017	Nebo	RC	91	13,956
		DD	4	466.5
	Babel	RC	68	11,209
		DD	6	775.2
Pre-2014	Nebo	RC	16	969
		DD	56	17,942.2
	Babel	RC	6	487
		DD	80	33,640
Total	Nebo	RC	195	28,993
		DD	81	22,249
	Babel	RC	249	41,317
		DD	138	39,634

Holes were drilled on north-south sections with dips of generally 60 degrees towards north at Nebo and 70 degrees towards north at Babel to optimally intersect the mineralised zones. Several east west holes have been drilled.

Diamond core is commonly HQ and PQ size, sampled on visible variation in rock type and ranges from 0.05m to 2.0m with half core being routinely analysed. RC drilling was used to obtain 1 m samples for Nebo and 2 m samples for Babel. Samples were crushed (DD only), dried and pulverised to produce a sub sample for a combination of Fusion XRF, Four Acid Digest ICP and Fire Assay methods.

Criteria	Comments
Drilling techniques	At Nebo, diamond drilling accounts for 30% of the drilling and comprises PQ, HQ and NQ2 sized core. At Babel, diamond drilling accounts for 33% of the drilling and comprises PQ, HQ and NQ2 sized core. All PQ is undertaken using triple tube and HQ is triple tube down to fresh rock. RC drilling comprises 140 mm diameter face sampling hammer drilling. Hole depths range from 42 to 300 m. 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.
Drill sample recovery	For Cassini drilling, DD core recoveries were visually logged for every hole and recorded in the database showing >95% recovery. Actual recoveries for RC drilling were calculated (assuming a hole volume and sample bulk density) for the first two drill holes for each rig and for every tenth hole thereafter. Overall recoveries are >95% and there have been no significant sample recovery problems. Of the 87 historical (pre-2014) diamond drill holes that are used in Mineral Resource estimate, Cassini has confirmed that 37 DD holes had recovery details recorded. Overall recoveries from the historical core also averaged >95%. Recovery records for the remaining holes are unknown. There is no significant relationship between sample recovery and grade. The very high core recovery means that any effect of such losses would be negligible if such a relationship even existed.
Logging	Drill core and chip samples have been geologically logged and the level of understanding of lithology is very high. Lithology checks are undertaken by comparing original logging to geochemical analysis and changes are made in the database if required. Logging of diamond core and RC samples at Nebo and Babel recorded lithology, mineralogy, mineralisation, structural and geotechnical (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. RC chips and DD core was logged for the entire length of all holes.
Sub-sampling techniques and sample preparation	RC drilling was used to obtain 1 m samples for Nebo and 2 m samples for Babel through an on-rig cyclone and splitter. Approximately 3 kg samples were collected in a calico bag that was sent off to be was pulverised to produce a sub sample for analysis. Minor holes at Nebo reported wet samples. When this occurred the on-rig cyclone and splitter was routinely cleaned. Diamond core is HQ and NQ2 size, sampled on visible variation in rock type and range from 0.05m to 2.0m. Core is cut on site with half core being routinely analysed. The sample preparation of 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. Diamond core requires boyd crushing after drying.

Criteria	Comments
Quality of assay data and laboratory tests	For drilling since 2014 For drilling 2014 to 2017 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), The digest approximates a "total" digest in most samples. Fire assay was used with a silver secondary collector and ICP-MS finish for Pt, Pd and Au. Loss on ignition (LOI) was measured gravimetrically at 1000°C. For drilling 2018, the analysis was similar as above however X-ray fluorescence was used instead of ICP for Co, Cu, Zn, Ni, As, Nb and Y. Both methods used have been compared displaying immaterial bias. Cassini field QAQC procedures involve the use of certified reference material (CRM) as assay standards, along with blanks and duplicates. The insertion rate of all QAQC checks averaged 1:20 with an increased rate in mineralised zones. 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. Blanks were submitted at a rate of every 20th sample confirming immaterial contamination between samples processed at the lab. Cassini field RC duplicates were taken on 1 m (at Nebo) and 2 m (at Babel) composites directly from the cone splitter at a rate of approximately 1 in every 50 as is quarter core DD samples as field duplicates. Pulp duplicates are submitted at the same rate. Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits. Sample measurement for fineness were carried out 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 duplicates as part of the in-house procedures. In 2015, 211 pulps were submitted to ALS Global as Umpire assay checks. In general the results showed no bias and an excellent correlation with only minor outliers. For drilling pre-2014 Assay analysis closely matched methods outlined above for 2014-2017 drilling. Comparisons of the different phases of analysis have been undertaken using quantile plots and only minor biases have been detected. Historical QA procedures and QC results for the WMC and BHP 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. It is considered the entire dataset to be acceptable for Resource Estimation.
Verification of sampling and assaying	Documented verification of significant intervals by independent personnel has not been done however both the Exploration Manager and the Technical Director of Cassini have viewed the RC chip samples and core from historical drilling.

Criteria	Comments
	In 2016 Cassini twinned 2 RC holes at Nebo and 3 DD holes at Babel with PQ diamond drilling. In 2018 all DD metallurgical holes twinned existing RC holes. Analysis of the results suggested no particular bias in either types of samples. 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. Previous operators collected data electronically and stored it on an acQuire database. Where assay results are below detection limit, a value of half the detection limit has been used. No other adjustments were made to assay data used in this estimate.
Location of data points	The grid system for the West Musgrave Project is MGA_GDA94, Zone 52. Topographic control was supplied by Lidar survey commissioned in 2018. The following describes collar and downhole survey methods: <u>For drilling since 2014</u> 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 ± 5cm for easting, northing and elevation coordinates. Downhole surveys were completed every 5m using Reflex north seeking gyroscopes after hole completion. Stated accuracy is ± 0.25° in azimuth and ± 0.05° in inclination. <u>For drilling pre-2014</u> Previous operators surveyed drill holes by handheld and/or differential GPS. Differential GPS positions have reported accuracy of ± 5cm for easting, northing and elevation coordinates. Exact accuracy of handheld GPS is unknown. Very early drill holes were surveyed downhole by a single shot downhole camera. Many of the drill holes have considerable deviation from the initial azimuth which is believed to be the effects of magnetic minerals within certain geological units. WMC commissioned a re-survey of these holes using a Gyro in 2002.
Data spacing and distribution	Sample spacing is reasonably consistent at both deposits. The vast majority of Nebo is drilled on 100 sections (north-south) with 50 m spacing on section. Two close spaced "crosses" have been drilled consisting of 9 holes drilled approximately 10m apart for each cross. At Babel, the vast majority is drilled on 100 sections (north-south) with 50 m spacing on section however the most western part of the deposit consists of 200m spaced sections. As with Nebo, two close spaced "crosses" have been drilled to model short spaced variability. Both deposits display relatively low to medium geological complexity, and mineralisation is strongly controlled by lithology therefore it is considered that the current data spacing and distribution is sufficient to establish geological and grade continuity appropriately for the Mineral Resource estimation. RC samples were composited direct from the splitter to 1 m lengths for Nebo and 2 m lengths for Babel. DD samples range from 0.05 m to 2 m.

Criteria	Comments
Orientation of data in relation to geological structure	Holes were drilled on north-south sections and dips of generally 60 degrees towards north at Nebo and 70 degrees towards north at Babel to optimally intersect the mineralised zones. To date, the deposit orientation has been favourable for drilling close to or perpendicular to mineralisation and therefore sample widths (compared to actual) are not considered to have added a sampling bias.
Sample security	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. Whilst in storage the samples are kept in a locked yard. Tracking sheets track the progress of batches of samples. No information is available for historical drilling sample security.
Audits or reviews	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. The sampling and assay protocols have remained relatively consistent since this audit. A review and audit of the sampling and assay techniques including a site and lab visit (BV – Perth) was conducted by the Competent Person in August 2018. The competent person considers the sampling techniques and data to be of sufficient quality to carry out Resource Estimation. The Cassini Exploration Manager often visits the lab and regularly visits site reviewing all drilling and sampling practices.

SECTION 2 Reporting of Exploration Results

Criteria	Comments
Mineral tenement and land tenure status	Nebo is located wholly within Mining Lease M69/0074. Babel is located Mining Leases 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. During 2018 the West Musgrave Project was subject to an earn-in and joint venture agreement between Cassini and OZ Minerals' Ltd of which the latter hold the majority ownership. All tenements are in good standing and have existing Aboriginal Heritage Access Agreements in place. No Mining Agreement has been negotiated.
Exploration done by other parties	Previous exploration has been conducted by BHP and WMC and Cassini. The work completed by BHP and WMC is considered by Cassini to be of a good to high standard.
Geology	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 a mafic intrusions of the Giles Complex (1068Ma) that has intruded into amphibolite facies orthogneiss country rock. Mineralisation is hosted within tubular chonolithic gabbronorite bodies are expressed primarily as a broad zones of disseminated sulphides and co-magmatic accumulations of, matrix to massive and breccia sulphides.
Drill hole Information	No Exploration Results have been reported in this release, therefore there is no drill hole information to report. This criterion is not relevant to this report on Mineral Resources.
Data aggregation methods	No Exploration Results have been reported in this release, therefore there are no drill hole intercepts to report. This criterion is not relevant to this report on Mineral Resources.
Relationship between mineralisation widths and intercept lengths	No Exploration Results have been reported in this release, therefore there are no drill hole intercepts to report. This criterion is not relevant to this report on Mineral Resources.
Diagrams	No Exploration Results have been reported in this release, therefore no exploration diagrams have been produced. This criterion is not relevant to this report on Mineral Resources.
Balanced reporting	No Exploration Results have been reported in this release. This criterion is not relevant to this report on Mineral Resources.
Other substantive exploration data	No Exploration Results have been reported in this release. This criterion is not relevant to this report on Mineral Resources.
Further work	The JV is currently undertaking ongoing studies. Further resource definition is currently underway including infill and extensional drilling.

SECTION 3 Estimation and Reporting of Mineral Resources

Criteria	Comments
Database integrity	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. Exports in a csv format are supplied for drillhole database construction in Vulcan software. Previous operators collected data electronically and stored it on an acQuire database. Assay data is loaded from text files supplied by the laboratory directly into the database without manual transcription. Core logging for Cassini/OZ Minerals holes was loaded directly into the database using Toughbook's. All data is regularly reviewed by Geobase, Cassini and OZ Minerals.
Site visits	The Competent Person visited the West Musgrave site during August 2018. The Competent Person found the protocols and practices relating to all stages of resource definition to be acceptable. The Competent Person did not find any issues that would materially affect the Mineral Resource estimate. The Exploration Manager for Cassini visits the site regularly.
Geological interpretation	Geological interpretation was undertaken by Cassini geologists and reviewed by the Competent Person. The geological interpretation was based on drill core data, including geochemical data, and core logs and photos. Chemical assays were used extensively to confirm individual lithological units particularly on RC holes. Detailed paper sections were produced and then digitised in Vulcan software where sectional strings were constructed before wireframing. The geological model for both Nebo and Babel deposits is interpreted to consist of a tube like intrusion comprised of several subtlety different gabbronorites which have intruded along the same pathway. Subsequent units have generally intruded within the last, creating an inflated, concentrically ringed chonolith emplaced into the surrounding orthogneiss rock. Dolerite dykes are minor to absent at Babel but are common at Nebo and post-date mineralisation and are barren of mineralisation. Interpretation and wireframes have been constructed for lithology (including dykes), weathering and estimation grade shells. Mineralisation is intimately associated with the brecciated contact of a mafic (gabbronorite) intrusive into the surrounding orthogneiss host rock and although there is a strong, almost exclusive relationship between lithology and mineralisation it was determined to construct estimation grade shells to optimise the estimation. Ni and Cu display a moderate to strong 1:1 correlation and therefore grade domains were produced that honour both Ni and Cu mineralisation. Interrogation of histograms and log-probability plots suggested a nominal 0.1% Ni cut-off to construct grade shells with geology strongly supporting the statistical cut-off. Grade domains were generally extended 50 m past the last grade intersection where geological continuity could be inferred. At Nebo, "high-grade" domains were constructed to model Massive Sulphide zones using a nominal 1% Ni cut-off and guided by logging of Massive Sulphide. These zones were wireframed where continuity could be interpreted between sections and drill holes however commonly the Massive Sulphide zones appear "patchy" and interpretation is unachievable so therefore not wireframed and a high grade restriction during the estimation phase is utilised. Massive sulphide zones are rare at Bebel and wireframing was not required. Four weathering zones were interpreted including OX (Oxide), PV (pyrite-violarite), TR (Transitional) and PR (Primary). The oxide horizon was determined from drill hole logging and sulphur content. PV, TR and PR zones are difficult to distinguish from logging and/or geochemical assay analysis. Subsequently thin section analysis (petrography) is undertaken

Criteria	Comments
	on selected holes and intervals to determine the weathering state. This data is then used to create weathering surfaces. Confidence in the geological interpretation is high on a sectional scale with generally good continuity between sections. Nebo displays a higher level of complexity related to dolerite dykes that are likely to have been emplaced within existing structures however Nebo would not be considered to be structurally "complex". Mineralisation is strongly controlled by lithology and therefore also displays good continuity on a sectional scale. Significant infill drilling in 2018 has not materially changed the previous interpretation suggesting good continuity. Massive Sulphide zones occurring at Nebo can be patchy in places and difficult to interpret however significant zones of Massive Sulphide do display continuity between sections. Alternative plausible interpretations on a global scale are unlikely due the current well defined interpretation however alterative interpretations locally may be material on a local scale.
Dimensions	The Nebo Mineral Resource is contained within an area defined by a strike length of 1,500 m and across-strike width of 1,050 m. Mineral Resources have been reported within a defined potentially economic pit shell that has a maximum depth of 230 m below surface. The Babel Mineral Resource is contained within an area defined by a strike length of 2,020 m and across-strike width of 1,350 m. Mineral Resources have been reported within a defined potentially economic pit shell that has a maximum depth of 530 m below surface.
Estimation and modelling techniques	The Mineral Resource area was separated into two separate deposits; Nebo and Babel. Domain definition used a combination of assay data and geology, taking into consideration the lithological controls on the mineralisation, the mineralogy of nickel and copper and the nickel and copper grades. A strong relationship exists between nickel and copper so constructed grade domains satisfied the requirements for both elements. Nickel/Copper mineralisation domains were also used for the estimation of Co, Au, Pt, Pd, Pb, Zn, As, Ca, Mg, S, Fe and Al as they were suitable and confirmed by EDA. A medium to strong association generally exists between Ni, Cu and other metals. Hard boundaries were used across all domains as contacts between mineralised and non or minor mineralisation was commonly sharp due to lithological controls Although grade can be influenced by lithology (within the grade shell), the differences are subtle and no sub-domaining by lithology was required except for Massive Sulphide zones at Nebo where wireframes were constructed. Four oxidation or weathering zones were interpreted including OX, PV, TR and PR. Analysis of grade statistics across these boundaries showed only minor difference so no sub-domaining by weathering was required except for S, Ca and Mg. Statistical and geostatistical analysis was completed using Supervisor software. All geological modelling and estimation was completed using Vulcan software. For both deposits 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. Sub-cells were assigned parent cell grades. The block size is considered to be appropriate given the dominant drill hole spacing and style of mineralisation. No assumptions were made regarding selective mining units. Particularly at Babel, blocks having grades below the reportable cut-off surrounded by blocks having grades above cut-off constitute a reasonable proportion of the Mineral Resource.

Criteria	Comments
	Sample spacing is reasonably consistent at both deposits. The vast majority of Nebo is drilled on 100 sections with 50 m spacing on section. Two close spaced "crosses" have been drilled consisting of 9 holes drilled approximately 10m apart for each cross. At Babel, the vast majority is drilled on 100 sections with 50 m spacing on section however the most western part of the deposit is made up of 200 m spaced sections. As with Nebo, two close spaced crosses have been drilled. Variograms were completed for all elements in each of the main mineralised domains for both Nebo and Babel. The variogram model was applied to the other minor grade domains. The close spaced crosses assisted in modelling short range structures. A multiple-pass (generally 2 passes) 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. Ordinary Kriging (OK) was used for grade estimation. Vulcan Anisotropic Modelling was utilised to inform search ellipse and variogram axis orientations. Anisotropic Modelling involves assigning a bearing, plunge and dip to each block that represents the orientation or trend of lithology/mineralisation. Independent estimations were completed for Ni, Cu, Co, Au, Pt, Pd, Pb, Zn, As, Ca, Mg, S, Fe and Al. Samples were composited to 2 m. The impact of very high-grade composites was managed using search restrictions for the main lenses and top-cuts if required for the minor lenses. Outliers most commonly represent Massive Sulphide intersections. Where continuous these zones were wireframed as domains however when intersected in single holes a search restriction was applied to best represent the patchy nature of this mineralisation. Due to the relatively low grade nature of the deposits, outliers and the method of restriction can influence the estimate. The block models used for the current estimate were compared with the 2017 estimate. Babel compared very closely at a range of cut-offs. For Nebo, the current estimate has a minor drop in grade for Ni and Cu (minor increase in tonnes) at the reportable cut-off and less tonnes at a higher cut-off grades. This is due to recent infill drilling, in particular on the Massive Sulphide zones, and the subsequent domaining and estimation rational used on this mineralisation type. Estimates were carefully validated by visual validation in 3D; checks include that all blocks are filled, that block grades match sample grades logically, that artefacts are not excessive given the choice of search parameters, and visual assessment of relative degree of smoothing. In addition, several check estimates were run using different top-cuts and search neighbourhood parameters with results showing reasonable however not material differences, with respect to Mineral Resource classification of the reported case. Statistical validation included the comparison of input versus output grades globally; semi-local checks using swath plots to check for reproduction of grade trends; comparison of global grade tonnage curves of estimates against grade tonnage curves derived from the previous estimate. There has been no historical mine production from the Nebo and Babel deposits. Ni, Cu, Co Au, Pt and Pd are assumed to be recoverable however Ni and Cu form the vast majority of assumed revenue. All other variables estimate are either penalty element or gangue. There has been no historical mine production from the Nebo and Babel deposits.

Criteria	Comments
Moisture	Tonnages are estimated on a dry basis. Core samples are dried before SG measurements are undertaken.
Cut-off parameters	The Mineral Resource has been reported above a cut- off grade of 0.25% Ni based on results of the previous FSS. Mineral Resources were further constrained within pit shells generated using a cut-off NSR (net smelter return) of A$24/t based on the previous FSS and ongoing studies. Costs include processing, administration, grade control and sustaining capital. OZ's assumed long-term metal prices were multiplied by 1.2 to allow for potentially higher future revenue values. The Table below shows the assumed prices (prior to being multiplied by 1.2) and metallurgical recoveries for contributors to NSR that include Ni and Cu. For these pits, revenues from Au, Co, Pd and Pt were not included in the NSR, which together would contribute approximately 5% additional revenue based on assumptions from the ongoing study. The assumed exchange rate is 0.73 (AUD/USD) and price assumptions are drawn from OZ Minerals' life-of-mine (LOM) Corporate Economic Assumptions updated in Quarter 4 2018 and are the consensus values of major brokers. Metallurgical assumptions are based on recent metallurgical test work as part of the ongoing studies and are broken down by weathering including Pyrite-Violarite (PV) and Transitional and Primary (TR/PR). PV mineralisation represents approximately 9% of the Mineral Resource and is further split by Massive (Mass) and Disseminated (Diss) mineralisation based on test work.

Assumption	Price	Recovery %		
		Weathering PV-Diss	Weathering PV-Mass	Weathering TR/PR
Ni	7.89 US$/lb	35	56	65
Cu	2.96 US$/lb	84*	92*	91*

* Copper recovery is the sum of copper recovery in both the nickel and copper concentrate.

Criteria	Comments
Cut-off parameters (cont.)	NSR is calculated on a block by block basis and also included royalties, concentrate payability, concentrate transport and penalties. Note that the NSR has only been used to generate pit shells for the purposes of the reasonable prosects test. The stated Mineral Resource does not include oxide material based on the current understanding of oxide recovery and economic potential.
Mining factors or assumptions	These deposits will be amenable to open cut mining methods as demonstrated from the previous FSS. This Mineral Resource does not account for mining recovery.
Metallurgical factors or assumptions	Metallurgical test work on representative samples selected via a metallurgical study have shown that a conventional crushing, grinding and flotation circuit would produce acceptable concentrate grades and metal recoveries as outlined in the FSS. Recent metallurgical test work, as part of the ongoing studies, has provided updated recoveries as outlined in the table above. This test work has predicted lower recoveries for pyrite-violarite material which constitutes approximately 9% of the Mineral Resource.
Environmental factors or assumptions	Nebo is located wholly within Mining Lease M69/0074. Babel is located within Mining Leases M69/0072 and M69/0073. Environmental baseline monitoring and land access negotiations are ongoing. There is has been no material change to the risk profile for regulatory approval, project water supply, materials handling and land access from those risks identified in the FSS.

Criteria	Comments
Bulk density	Within the resource area, the database contained a total of 14 987 density measurements (4 219 at Nebo and 10 768 at Babel). Density measurements were calculated using the water immersion method from dried drill core, with lengths measured matching the assay sample length, from both deposits and from the various rock types and weathering zones. Density measurements were then assigned to waste/mineralised zones, lithology and weathering domains based on averages. Some minor density outliers were removed from the analysis. In general the values within each "density domain" showed minor spread as to be expected from the homogenous host rock lithology and mineralisation style and sample number are sufficient to represent each determined density domain. For Massive Sulphide domains only, a linear regression was calculated based on a reasonable correlation that exists between measured bulk density results and sulphur (S). This regression was then used to calculate bulk density on a block by block basis for Massive Sulphide domains.
Classification	The basis for Mineral Resource classification into both Indicated and Inferred categories is underpinned by the robustness of the conceptual geological model, quality of data and the continuity of geology and grade relative to the arrangement of data. Both deposits display reasonable to good geological/lithological continuity between drill sections and mineralisation is strongly correlated to lithology. The quality of the estimation of grades was assessed using the relative kriging variance, pass in which the estimate was made, slope of regression, distance to the nearest informing composite and number of holes used in the Ni and Cu estimates. The confidences in the interpretations and estimate were then integrated, resulting in annealing of the classification in places. 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). The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	This Mineral Resource estimate as at 12 April 2019 has been reviewed and partially audited by Stuart Masters of CS-2 Pty Ltd. The review and partial audit found that there were no fundamental flaws in the Mineral Resource estimate and, with minor caveats regarding local grade estimation which may be relevant for the evaluation of selective mining options, it was found to be fit for purpose and that the resource classification was commensurate with the uncertainties in the inputs and methods.
Discussion of relative accuracy / confidence	The Mineral Resource statement relates to global estimates of in-situ tonnes and grade. Factors affecting global accuracy and confidence of the estimated Mineral Resource at the selected cut-off include the following: • Both deposits, particularly Babel contain significant blocks with grades estimated close to the reportable cut-off grade. Domaining was undertaken to reduce conditional biases of estimated grades caused by the use of Ordinary Kriging however smoothing of estimated grades will have some impact on block grades and potentially reported Mineral Resources. The classification of the Mineral Resource has taken this into consideration. • Nebo commonly contains Massive Sulphide mineralisation distributed within lower grade disseminated mineralisation. The extent of this mineralisation between

Criteria	Comments
	existing drill holes is variable and further drilling will be undertaken to define this distribution. There has been no production from the Nebo Babel deposits for comparison with the estimated Mineral Resource.

Competent Person Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mark Burdett, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (224519). Mark Burdett is a full-time employee of OZ Minerals. Mark Burdett has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC 2012). Mark Burdett consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mark Burdett BSc (Geology), has over 18 years of relevant and continuous experience as a geologist including significant experience in Base Metal deposits. Mark Burdett has visited the site in August 2018.

Mark Burdett
OZ Minerals Ltd

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