

OZ Minerals Limited

WEST MUSGRAVE PROJECT

Nebo-Babel Deposits

Mineral Resource Statement and Explanatory Notes

As at 11th Feb 2020



WEST MUSGRAVE MINERAL RESOURCE STATEMENT – 11TH FEBRUARY 2020

The West Musgrave 2020 Mineral Resource Statement relates to an updated Mineral Resources estimate for the Nebo and Babel nickel-copper deposits, located within the West Musgrave Project area in Western Australia that was 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 Resources for the Nebo-Babel deposits is shown in **Error! Reference source not found.** The Mineral Resource estimates have been reported in accordance with the 2012 edition of the JORC Code. The Mineral Resource has been reported above a 1.2 times multiplier (revenue factor) Net



Smelter Return (NSR) cut-off of A\$23/t. The A\$23/t value represents the 2020 Ore Reserve¹ mill limited break-even cut-off of \$19.60/t plus approximate mining cost \$3.40. The 1.2 revenue factor NSR is generated by multiplying assumed metal prices by 1.2 to allow for reasonable prospects for eventual economic extraction. All NSR assumptions including metal prices, recovery, concentrate payability, mining and processing costs are based on the PFS² study as at October 2019 and align with 2020 Ore Reserve optimisation inputs. Mineral Resources were further constrained within "reasonable prospects" pit shells generated using a cut-off NSR of A\$28/t and utilising a 1.2 times revenue factor. The A\$28/t value represents the 2020 Ore Reserve optimised NSR cut-off. Further details of the NSR calculation can be found in JORC Table 1 below.

Cabaaaaa	Denesit	Tonnes	Ni	Cu	Au	Ag	Со	Pd	Pt	Ni metal	Cu metal
Category	Deposit	(Mt)	(%)	(%)	ppm	ppm	ppm	ppm	ppm	(kt)	(kt)
	Babel	240	0.31	0.35	0.06	1	120	0.10	0.08	760	850
Indicated	Nebo	38	0.40	0.35	0.04	0.8	150	0.08	0.06	150	130
	Sub-total	280	0.32	0.35	0.06	1	120	0.10	0.08	910	990
	Babel	62	0.34	0.38	0.07	1	120	0.11	0.09	210	230
Inferred	Nebo	1	0.38	0.44	0.05	0.6	140	0.09	0.07	3.6	4.1
	Sub-total	63	0.34	0.38	0.07	1	120	0.11	0.09	210	240
المراب المرا	Babel	300	0.32	0.36	0.06	1	120	0.10	0.09	960	1,100
ina + Inf	Nebo	39	0.40	0.35	0.04	0.8	150	0.08	0.06	150	140
Total		340	0.33	0.36	0.06	1	120	0.10	0.08	1,100	1,200

Table 1: Nebo-Babel Mineral Resource Estimate as at 11th Feb 2020

* Mineral Resources reported at a 1.2 revenue factor A\$23 NSR cut-off and within a 1.2 revenue factor A\$28 NSR pit shell.

Changes in the 2020 Mineral Resource Estimate

Since the previous Mineral Resource update provided on 12 April 2019⁴, an additional 46,000m of drilling has been incorporated into the Nebo-Babel Mineral Resources estimate and this drilling was undertaken from December 2018 to September 2019.

² See OZ Minerals announcement titled "West Musgrave Pre-Feasibility Study - a low carbon, long-life, low-cost mine" released on 12 February 2020 and available at: <u>www.ozminerals.com/media/asx/</u>

¹ See OZ Minerals announcement titled "West Musgrave Project Nebo-Babel Deposits Ore Reserve Statement and Explanatory Notes as at 11th Feb 2020", released on 12 February 2020 and available at: www.ozminerals.com/operations/resources-reserves/

³ Table is subject to rounding errors and are reported to significant figures to reflect appropriate precision in the estimate and this may cause apparent discrepincies in totals

⁴ Refer to "West Musgrave Project Nebo Babel Mineral Resource Statement and Explanatory Notes as at 12 April 2019 <u>https://www.ozminerals.com/uploads/media/190412_ASX_Release_-_OZL_Nebo-</u> <u>Babel Mineral Resource Statement.pdf</u>



A significant increase in Mineral Resource tonnes from the previous reported Mineral Resource estimate is mainly due to the relative drop in reporting cut-off grade. The previous Resource utilised a 0.25% Ni cut-off based on the Further Scoping Study⁵. The updated Resource utilises an NSR cut-off based on the concurrent PFS study. This NSR cut-off approximates to using a 0.18% Ni cut-off however it was determined to use an NSR cut-off to better reflect the variable metal recoveries of material types and the multi-metal revenue inputs.

There has also been a significant conversion of Inferred to Indicated Resource based on recent infill drilling with 82% of the Mineral Resource now Indicated. Extensional drilling has resulted in minor Resource extension, particularly at the eastern end of Babel.

Drilling Techniques

At Nebo, diamond drilling accounts for 36% of the drilling and comprises PQ, HQ and NQ2 sized core. At Babel, diamond drilling accounts for 32% of the drilling and comprises PQ, HQ and NQ2 sized core. RC drilling makes up the remaining drilling and comprises 140 mm diameter face sampling hammer drilling.

Sampling and Sub-Sampling Techniques

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

⁵ 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/



(hydrochloric, nitric, hydrofluoric and perchloric acid) followed by an ICP-AES and ICP-MS finish was undertaken for Co, Cu, Zn, Ni, Ag 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

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, Ag, 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 at Babel and at Nebo three "structural domains" were interpreted to inform search ellipse and variogram axis orientations. Samples were composited to 2m. The impact of very high-grade composites was managed using top-cuts.

Reasonable Prospects

The Mineral Resource has been reported above a 1.2 times multiplier (revenue factor) Net Smelter Return (NSR) cut-off of A\$23/t. The A\$23/t value represents the 2020 Ore Reserve mill limited break-even cut-off of \$19.60/t plus approximate mining cost \$3.40. Mineral Resources were further constrained within "reasonable prospects" pit shells generated using a cut-off NSR of A\$28/t and utilising a 1.2 times revenue factor. The A\$28/t value represents the 2020 Ore Reserve optimised NSR cut-off.

All NSR assumptions are based on the PFS study as at October 2019 and align with 2020 Ore Reserve optimisation inputs. 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 (prior to being multiplied by 1.2). 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 3 2019 and were the consensus values of major brokers. Metallurgical assumptions were based on metallurgical test work as part of the ongoing studies, current as at October 2019.

Parameter	Units	LOM
Nickel	US \$ / lb	7.16
Copper	US \$ / lb	2.94
Gold	US \$ / oz	1,246
Silver	US \$ / oz	17.19
Platinum	US \$ / oz	1,311
Palladium	US \$ / oz	633
Cobalt	US \$ / lb	21.90
Exchange Rate	AUD / USD	0.73

Table 2: Revenue Assumptions

* The above metal prices are the assumptions used prior to being multiplied by 1.2

NSR is calculated on a block by block basis and includes metal prices, operating costs, metal recoveries, royalties, concentrate payability, concentrate transport and penalties. Further details of the NSR calculation can be found in JORC Table 1 below.



The NSR cut-off utilised to report the Mineral Resource approximates to using a 0.18% Ni cut-off and is considered more suitable for reporting purposes. The stated Mineral Resources do not include oxide material based on the current understanding of oxide recovery and economic potential.

Mining and Geotechnical

These deposits will be amenable to large open cut mining methods as demonstrated in the concurrent PFS study. Geotechnical drilling and studies have been undertaken for the PFS.

Processing

Metallurgical test work on representative samples selected via a geometallurgical study has shown that a crushing, grinding and flotation circuit would produce acceptable concentrate grades and metal recoveries as outlined in the PFS.

Community and Environment

The focus during the PFS has been to secure land access and building relationships with the community. Four main heritage surveys occurred in 2018 to secure land access for the project. The surveys typically occurred in blocks of ten days with an average of 30 people in attendance each day. The heritage surveys provided an opportunity to build a strong relationship between the project members and the community.

Since May 2018, some 40 studies have been completed, building a comprehensive understanding of the environment and the potential impacts associated with the project. Based on the extensive baseline dataset project environmental risks are considered manageable.

The first of three primary approvals submissions; assessment under Part 4 of the Western Australian Environment Protection Act (EP Act) is anticipated for early Q2 2020. Information obtained in the environmental baseline work program to date does not indicate any material threats to the obtainment of this approval.

Mineral Resource Classification Criteria

The basis for Mineral Resource classification is underpinned by the robustness of the 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, the 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 the continuity of geology including weathering profiles and metal values and 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 . Dimensions are based on Mineral Resources contained within reportable pit shells. Drilling has confirmed that mineralisation can extend beyond the dimensions stated below.

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

Table 3: Dimensions of the Mineral Resource



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 Reverse Circulation (RC) drill holes. Drilling on the deposits commer 2000 undertaken by WMC and then BHP through until 2012. Ca Limited (Cassini) commenced drilling in 2014. In 2016 OZ Minerals joint venture with Cassini and a Further Scoping Study was complet Since then OZ Minerals has increased its ownership of the proj reaching expenditure thresholds. The previous estimate included holes drilled up until 2018. This es additional holes drill in 2019. The table below summarises drilling a			holes (DD) and nced in the year assini Resources s entered into a ted in late 2017. ject to 70% by stimate includes activities.		
	Phase	Deposit	Туре	# Holes	# Meters
	2019	Nebo	RC	66	11,344
			DD	5	890
		Babel	RC	156	32,969
			DD	12	1,291
	2018	Nebo Babel	RC	88	14,071
			DD	21	3,841
			RC	175	29,621
			DD	52	5,219
	2014-2017	Nebo	RC	91	13,956
			DD	4	467
		Babel	RC	68	11,209
			DD	6	775
	Pre-2014	Nebo	RC	16	969
			DD	56	17,942
		Babel	RC	6	487
			DD	80	33,640
	Total	Nebo	RC	243	38,570
			DD	78	22,047
		Babel	RC	415	76,529
			DD	137	35,742
		Babel	DD RC DD	78 415 137	22,047 76,529 35,742

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.



	Criteria
	Drilling technic
	Drill sample re
GD	
	Logging
	Logging
	Sub-sampling
	techniques and
	preparation

Criteria	Comments
	The 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 1m and 2m samples for Nebo and 2m 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.
Drilling techniques	At Nebo, diamond drilling accounts for 36% of the drilling and comprises PQ, HQ and NQ2 sized core. At Babel, diamond drilling accounts for 32% 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, the 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 every tenth hole after that. 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 data (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). The 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 1m and 2m samples for Nebo (2m from 2019) and 2m samples for Babel through an on-rig cyclone and splitter. Approximately 3kg 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 were routinely cleaned.
	Diamond core was PQ, HQ and NQ2 size, sampled on visible variation in rock type and range from 0.05m to 2.0m. The core was cut on site with half core being routinely analysed.



Criteria	Comments
	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 microns. Diamond core required Boyd crushing after drying.
Quality of assay data	For drilling since 2014
and laboratory tests	For drilling from 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, Ag, 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 2018 and 2019 drilling, 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 1m and 2m (at Nebo) and 2m (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 were submitted at the same rate. Repeat or duplicate analysis for samples reveals that the precision of samples is within acceptable limits.
	Sample measurement for fineness was carried out by the laboratory as part of their internal procedures to ensure the grind size of 90% passing 75 microns 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.



Criteria	Comments
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.
	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 the 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 a Lidar survey commissioned in 2018. The following describes collar and downhole survey methods:
	For drilling since 2014
	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 \pm 0.25° in azimuth and \pm 0.05° in inclination.
	For drilling pre-2014
	Previous operators surveyed drill holes by handheld and/or differential GPS. Differential GPS positions have reported accuracy of \pm 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 a 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 50m sections (north-south) with 50m spacing on the section. Two close spaced "crosses" have been drilled consisting of 9 holes drilled approximately 10m apart for each cross. At Babel, the majority is drilled on 50m sections (north-south) with 50m spacing on section however the most western part of the deposit consists of 100m sections with 50m spacing on section. 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 appropriate for the Mineral Resource estimation.



Criteria	Comments
	RC samples were composited directly from the splitter to 2m lengths for Nebo and 2m lengths for Babel. DD samples range from 0.05m to 2m.
Orientation of data in relation to geological structure	Holes were drilled on north-south sections and dips of generally 60 degrees towards the north at Nebo and 70 degrees towards the north at Babel to intersect the mineralised zones optimally.
	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 a recognised freight service and then to the assay laboratory by a Perthbased courier service.
	While 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.
	In 2016 OZ Minerals entered into a joint venture with Cassini and a Further Scoping Study was completed in late 2017. Since then OZ Minerals has increased its ownership of the project to 70% by reaching expenditure thresholds.
	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 a 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 intrusion 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 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.



SECTION 3 Estimation and Reporting of Mineral Resources

Critoria	Commonte
Criteria	
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	The 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 50m 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. Massive sulphide zones are rare at Babel 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 on selected holes and intervals to determine the weathering state. This data is then used to create weathering surfaces.



Criteria	Comments
	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 2019 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 to 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 1,500m and across-strike width of 1,050m. 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 2,020m and across-strike width of 1,350m. Mineral Resources have been reported within a defined potentially economic pit shell that has a maximum depth of 530m below the surface.
Estimation	The Mineral Resource area was separated into two separate deposits; Nebo and Babel.
and modelling techniques	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, Ag, Pt, Pd, Pb, Zn, As, Ca, Mg, S, Fe and Al as they were suitable and confirmed by Exploratory Data Analysis. 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 in Nebo and Babel and Ca and Mg in Babel.
	Statistical and geostatistical analysis was completed using Supervisor software. All geological modelling and estimation were 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.
	Sample spacing is reasonably consistent at both deposits. The majority of Nebo is drilled on 50m sections with 50m spacing on section. Two close spaced "crosses" have been drilled



Criteria	Comments
	consisting of 9 holes drilled approximately 10m apart for each cross. At Babel, the vast majority is drilled on 50m sections with 50m spacing on section however the most western part of the deposit is made up of 100m spaced sections with 50m spacing on the section. 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 three 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 for Babel. Anisotropic Modelling involves assigning a bearing, plunge and dip to each block that represents the orientation or trend of lithology/mineralisation. At Nebo three "structural domains" were interpreted to inform search ellipse and variogram axis orientations. Independent estimations were completed for Ni, Cu, Co, Au, Ag, Pt, Pd, Pb, Zn, As, Ca, Mg, S, Fe and Al.
	Samples were composited to 2m. The impact of very high-grade composites was managed using top-cuts if required. Outliers most commonly represent Massive Sulphide intersections. Where continuous these zones were wireframed as domains however when intersected in single holes top-cuts were applied if above the selected grade threshold. Due to the relatively low grade nature of the deposits, outliers and the method of restriction can influence the estimate on a local scale.
	The block models used for the current estimate were compared with the 2019 estimate. Both Nebo 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 while Babel displayed an increase in grade due to infill drilling confirming higher grade continuity.
	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 the 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, Ag, Pt and Pd are assumed to be recoverable however Ni and Cu form the vast majority of assumed revenue. All other variable estimates are either penalty elements or gangue.
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 1.2 times multiplier (revenue factor) Net Smelter Return (NSR) cut-off of A\$23/t. The A\$23/t value represents the 2020 Ore Reserve mill limited break-even cut-off of \$19.60/t plus an approximate mining cost \$3.40. The 1.2 revenue factor NSR is generated by multiplying assumed metal prices by 1.2 to allow for reasonable prospects for eventual economic extraction. NSR is created on a block by block basis and all NSR assumptions including recovery, concentrate payability, mining and



processing costs are based on the PFS study as at October 2019 and align with 2020 Ore Reserve optimisation inputs. Mineral Resources were further constrained within "reasonable prospects" pit shells generated using a cut-off NSR of A\$28/t and utilising a 1.2 times revenue factor. The A\$28/t value represents the 2020 Ore Reserve optimised NSR cut-off.

NSR is calculated on a block by block basis and includes metal prices, operating costs, metal recoveries, royalties, concentrate payability, concentrate transport and penalties.

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 (prior to being multiplied by 1.2). 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 3 2019 and are the consensus values of major brokers.

Table	2:	Revenue	Assumptions*

Parameter	Units	LOM
Nickel	US \$ / lb	7.16
Copper	US \$ / lb	2.94
Gold	US \$ / oz	1,246
Silver	US \$ / oz	17.19
Platinum	US \$ / oz	1,311
Palladium	US \$ / oz	633
Cobalt	US \$ / lb	21.90
Exchange Rate	AUD / USD	0.73

^t The above metal prices are the assumptions used prior to being multiplied by 1.2

Metallurgical assumptions were based on recent metallurgical test work as part of the ongoing studies current as at October 2019 and are outlined in Table 3 below.

Table 3: Metallurgical Recoveries

			Recovery%	
Ore Type	Metal	Ni%>0.25	0.20≤ Ni% <0.25	0.15≤ Ni% <0.2
Non-PV	Nickel	74.1	60.3	50.3
	Copper	79.4	73.9	65.9
PV	Nickel	32.5	26.6	20.1
	Copper	71.3	66.6	59.1

Royalties were applied and included:

- Nickel royalty 2.5%
- Copper sold as concentrate royalty 5%
- Copper sold as Ni by-product royalty 2.5%
- Cobalt sold in Ni concentrate royalty 2.5%
- Gold royalty 2.5%
- Silver royalty 2.5%
- Platinoids royalty 2.5%
- Native Title royalty
- Project Net Smelter Return royalty 2.0%

A reasonable assumption was made for Native Title royalty whilst it is still under negotiation.

Table 4 below outlines assumed concentrate payability, transport costs and smelter charges.



Criteria	Comments
	Table 4: Transports, Payabili
	Parameter
	Nickel Concentrate:
	- Transport to Interr
	- Transport to Dome
	- Nickel Payability
	- Copper Payability
	- Cobalt Payability
	- Palladium Payabili
	- Platinum Payability
	Copper Concentrate:
	- Transport for market
	- Copper Payability
	- Copper Concentra
	- Copper Refining
	- Gold Refining
	- Silver Refining
	The NSR cut-off utilised cut-off and is considered do not include oxide ma
Mining factors or assumptions	These deposits will be an previous FSS. This Minera
Metallurgical factors or assumptions	Metallurgical test work shown that a crushing, gi grades and metal recove
Environment al factors or	Nebo is located wholly w Leases M69/0072 and M
assumptions	Environmental baseline r been no material change materials handling and la
Bulk density	Within the resource area (4,087 at Nebo and 10,63 immersion method from length, from both deposi
	A strong, positive correla mineralised domains belo

	Comments			
-	Table 4: Transports, Payabilities and Smelter	Charges Assumpti	ons	
	Parameter	Units	LON	1
	Nickel Concentrate:			
	- Transport to International market	AU \$ / wmt	221	
	- Transport to Domestic market	AU \$ / wmt	98	
			Non-PV	PV
	- Nickel Payability	%	71	67
	- Copper Payability	%	12.5	0
	- Cobalt Payability	%	12.5	0
	- Palladium Payability	%	12.5	40
	- Platinum Payability	%	12.5	0
	Copper Concentrate:			
	- Transport for International market	AU \$ / wmt	221	
	- Copper Payability	%	96.5	>
	- Copper Concentrate Smelting	US \$ / dmt	85	
-	- Copper Refining	US \$ / lb	0.08	5
-	- Gold Refining	US \$ / oz	5	
ļ	- Silver Refining	US \$ / oz	0.5	
r ions	These deposits will be amenable to open previous FSS. This Mineral Resource does	cut mining meth s not account for	nods as demons mining recover	trated from the y.
gical r ons	Metallurgical test work on representations shown that a crushing, grinding and flota grades and metal recoveries as outlined	ve samples selec ation circuit woul in the PFS.	ted via a meta d produce acce	llurgical study ptable concentr
ent or	Nebo is located wholly within Mining Lea Leases M69/0072 and M69/0073.	ase M69/0074. Ba	bel is located w	ithin Mining
ons	Environmental baseline monitoring and been no material change to the risk pro materials handling and land access from	land access nego ofile for regulato those risks identi	otiations are one ry approval, pro ified in the FSS.	going. There is oject water sup
sity	Within the resource area, the database (4,087 at Nebo and 10,634 at Babel). Den immersion method from dried drill core, length, from both deposits and the vario	contained a total sity measuremen with lengths mea us rock types and	l of 14,721 den its were calculat asured matching d weathering zo	sity measureme ed using the wa g the assay sam nes.
	A strong, positive correlation between de mineralised domains below the transitior below the pyrite-violarite weathering sur and then used to calculate density values	ensity and Fe2O3 nal weathering su face at Babel. A li s on a block by bl	was identified a rface and all mi near regression ock basis.	at Nebo for all neralised doma was calculated
	For all other domains, density values wer values within each "density domain" sh	re assigned based nowed minor spr	d on their average read as to be e	ges. In general, expected from



Criteria	Comments
	homogenous host rock lithology and mineralisation style and sample numbers are sufficient to represent each determined density domain.
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, the 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 the continuity of geology and weathering profiles 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 11 th Feb 2020 has been reviewed and audited by Douglas Corley of Mining One. The review found that there were no fundamental flaws in the Mineral Resource estimate and was found to be fit for purpose however some improvements could be made regarding local scale grade distribution particular at Nebo within the Massive Sulphide zones. Further drilling would improve the estimate in these areas and would facilitate an Indicator Estimate to probabilistically define the Massive Sulphide zones.
	It was stated that the classification conforms to the requirements of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves.
Discussion of relative accuracy /	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:
confidence	 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.
	• Thin section analysis is undertaken to determine the position of weathering profiles including PV. This analysis does not occur on all drill holes and can be sparse in places therefore resulting in a low confidence determination of weathering state (PV vs TR vs PR) in places. The classification of the Mineral Resource has considered this.
	 Nebo commonly contains Massive Sulphide mineralisation distributed within lower grade disseminated mineralisation. The extent of this mineralisation between existing drill holes is variable and further drilling will be undertaken to define this distribution. There is an observed complexity with respect to the distribution of the massive sulphides and it is suggested a more probabilistic approach, such as Indicator Kriging, is adopted to define massive sulphide domains once this drilling is undertaken. This will notentially improve the Nebo estimation on a local scale



Criteria	Comments
	particularly with respect to the predictability of tonnes and grades at higher cut- offs, above the reportable Mineral Resource cut-off.
	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 and holds shares in Oz Minerals Ltd.

Mark Burdett Oz Minerals Ltd



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