OZ Minerals Limited

CARRAPATEENA PROJECT

Mineral Resource Statement and Explanatory Notes

As at 6 March 2019

Carrapateena Mineral Resource Explanatory Notes As at 6 March 2019

CARRAPATEENA MINERAL RESOURCE STATEMENT – 6 MARCH 2019

The Carrapateena 2019 Mineral Resource Statement relates to an updated Mineral Resource estimate for the Carrapateena copper-gold deposit, an iron oxide copper-gold (IOCG) deposit located in central South Australia on the eastern margin of the Gawler Craton (see Figure 1).

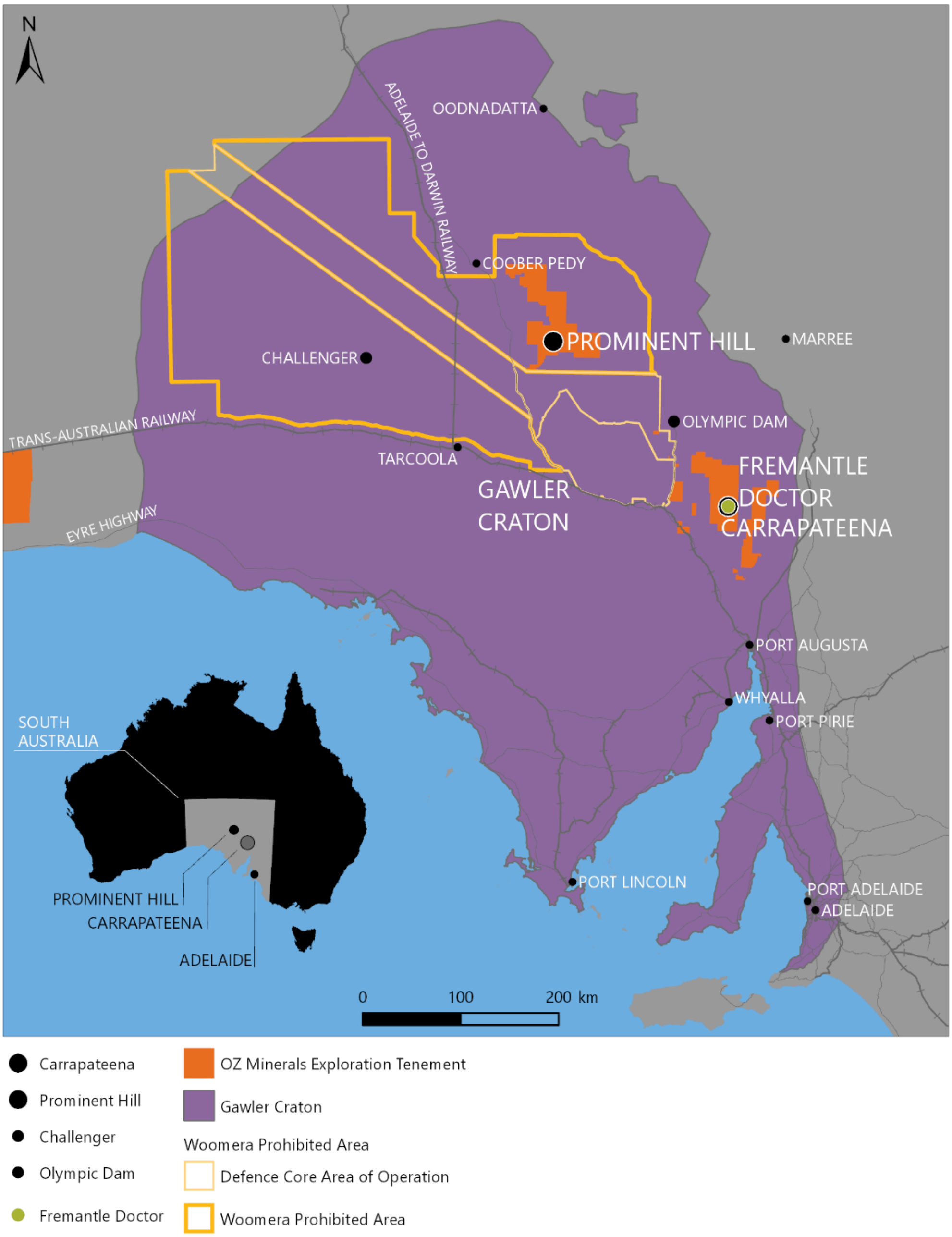


Figure 1: **Location of Carrapateena, South Australia**

This Mineral Resource Statement is an update to the restated 2016 Mineral Resource as at 18 November 2016[1]. This update is not based on any drilling since the previous estimate but has been made to reflect minor changes to price and exchange rate assumptions and the need to assess the amenability of the resource to exploitation by Block-Caving.

The Mineral Resource estimate is intended to be suitable as a basis for assessing a Sub-Level Cave (SLC) mining operation in the upper levels and a Block Cave (BC) mining operation in the lower levels.

Mineral Resource

The estimated Mineral Resource for the Carrapateena deposit 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 106 drill holes (including 31 wedges) for a total of 60,809 samples in mineralised domains. For mineralisation above the 4,200m RL, a nominal cut-off of A$70 per tonne simplified net smelter return[2] (NSR) has been used to generate a continuous shape[3] in which all material was deemed to have reasonable prospects of eventual economic extraction, assuming a SLC operation. For mineralisation between the 3,600m RL and the 4,200m RL, a nominal cut-off of A$20 per tonne simplified NSR has been used to generate a continuous shape in which all material was deemed to have reasonable prospects of eventual economic extraction assuming a BC operation.

[1] Carrapateena Mineral Resource Statement and Explanatory Notes as at 18 November 2016, 9 December 2016, https://www.ozminerals.com/uploads/media/1626894.pdf

[2] Net Smelter Return (NSR) details can be found under Section 3 "Cut-off parameters" in the attached JORC Table 1 documentation.

[3] The shape was generated by digitising a single polygon around blocks above the cut-off on 20 m levels. These polygons were the refined to ensure a 3D shape that was realistic given the proposed mining option. To achieve this, in places some blocks below the cut-off were included, especially on the periphery. No separate internal waste shapes were defined as the likelihood of selectively recovering such material during mining is very low in such an operation. Minimum (maximum) polygon area for the BC option is around 150,000 m^2 (345,000 m^2), which equates to a circle with diameter of 440 m (660 m). Minimum (maximum) polygon area for the SLC option is around 30,000 m^2 (50,000 m^2), which equates to a circle with a diameter of 200 m (250 m).

Table 1: Carrapateena Mineral Resource Estimate[4] [5] [6] as at 6 March 2019

Mining Region	Level (m) Lower	Level (m) Upper	Envelope Cut-off (NSR A$)	Category	Tonnes Mt	Cu %	Au g/t	Ag g/t	Cu kt	Au koz	Ag Moz
Sub-level Cave	4,200	5,000	$70	Measured	22	1.6	0.8	8.4	341	528	5.9
				Indicated	21	1.4	0.7	7.9	294	493	5.3
				Inferred	3	0.3	0.3	3.3	9	23	0.3
				Total	**46**	**1.4**	**0.7**	**7.9**	**644**	**1,044**	**11.6**
Block Cave	3,600	4,200	$20	Measured	78	1.0	0.4	3.6	750	1,019	8.9
				Indicated	284	0.7	0.3	2.7	1,874	2,624	24.4
				Inferred	179	0.3	0.2	1.7	616	1,065	10.1
				Total	**541**	**0.6**	**0.3**	**2.5**	**3,240**	**4,708**	**43.4**
Total	3,600	5,000	$70 / $20	Measured	100	1.1	0.5	4.6	1,091	1,548	14.8
				Indicated	305	0.7	0.3	3.0	2,168	3,117	29.8
				Inferred	182	0.3	0.2	1.8	624	1,088	10.4
				Total	**587**	**0.7**	**0.3**	**2.9**	**3,883**	**5,753**	**55.0**

[4] This table is subject to rounding errors.
[5] This Mineral Resource does not account for mining recovery or mining dilution.
[6] The use of a cut-off to generate a contiguous envelope required by SLC and BC results in some blocks below cut-off being included in the Mineral Resource, as exemplified by the SLC Inferred Resources.

Changes in the 2019 Mineral Resource Estimate

The differences in resource tonnages and grades between the 2019 Mineral Resource and the 2016 Mineral Resource are solely due to a change in the assumed cut-off value between 3,600m RL and 4,200m RL, which was modified to allow assessment of exploitation by BC between these levels.

Geology and Geological Interpretation

The Carrapateena Breccia Complex is located within the Olympic copper gold (Cu-Au) Province on the eastern edge of the Gawler Craton. It is hosted within Donington Suite granite and is unconformably overlain by approximately 480 metres of Neoproterozoic sediments. Mineralisation and alteration is in the form of that seen at other large South Australian IOCG deposits, including Prominent Hill and Olympic Dam.

For modelling and estimation, the deposit geology was interpreted into several domains based on a combination of lithology, chemistry and mineralisation style, including chalcopyrite-dominant domain, bornite-dominant domain, pyrite-chalcopyrite domain, gold enriched zones, leached zones and barren hematite breccias.

Sampling and Sub-Sampling Techniques

All basement samples consist of diamond drill core (NQ, NQ2, HQ and PQ) cut with a manual or automatic core saw. The drill core is sampled as half core, except for PQ core, metallurgical holes and field duplicates, where quarter core was sampled.

All available basement drill core, except for metallurgical holes and some instances where holes passed through large intervals of granite outside the mineralisation, were sampled on 1 metre intervals but respect geological contacts in places. Entire samples were crushed then pulverised. For OZ Minerals drill holes, sample preparation included drying, crushing and pulverising in full to a nominal 90 percent passing 75 microns. For Teck Cominco Australia Pty Ltd (Teck) drill holes, samples were pulverised to a nominal 85 percent passing 75 microns.

Drilling Techniques

For Teck Cominco Australia Pty Ltd drill holes, a combination of RC and mud-rotary was used for pre-collars. HQ diamond drilling was used through to top of basement and NQ through basement to EOH. For OZ Minerals drill holes, diamond drilling was used from surface with a combination of PQ, HQ and NQ2 core sizes.

Sample Analysis Method

Samples were sent to either the Bureau Veritas (Amdel) Adelaide laboratory by (OZ Minerals and large proportion of Teck drill holes) or the Intertek Genalysis Perth laboratory (limited Teck holes). Copper and silver were analysed using a multi-acid digest and ICP-OES (copper and silver) or ICP-MS (silver, OZ Minerals holes). Gold grades were analysed using fire assay (typically 20 grams or 40 grams) and, in nearly all cases, an AAS finish.

Estimation Methodology

A block model was constructed having values estimated independently for Cu, Au, Ag, U, F, C, Ba, Fe, Mg, Si, S, SG (as measured) and Weight Loss on Drying, by using Ordinary Kriging of sample data composited to 4 metre intervals, except for Fluorine where 1 metre composites were used, as many recent holes were only assayed for Fluorine for 1 metre in every 4 metres. Domain boundaries were generally treated as hard boundaries during estimation, except for gold, for which soft boundaries were used between some domains.

Whilst the 2016 and 2015 estimates used the same estimation methodology, the additional low-angle data from the 2016 drilling campaign led to refined search neighbourhood and variogram model parameters in 2016, which have been used to update the entire resource.

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. OZ Minerals provided advice to the Competent Person relating to the quality of the data and the confidence in the interpretations of geology and mineralisation. The quality of the estimation of grades was assessed using the relative kriging variance, estimation pass, slope of regression, distance to the nearest informing composite and number of holes used in the copper estimate. The confidences in the interpretations and copper estimate were then integrated, resulting in annealing of the classification in places. Finally, those parts of the model that were unlikely to satisfy the ‘reasonable prospects test’ (reasonable prospects for eventual economic extraction), were excluded from the resource estimate, mainly on the basis of contiguity, dimensions and grade. A depth cut-off of 1,500 m below surface (3,600m RL) has been applied to the A$20 NSR shape, as mineralisation below this level is outside the reasonable prospects volume.

The Competent Person has checked, reviewed and integrated all this information and subsequently assigned a classification of Measured, Indicated or Inferred Mineral Resource to the estimate; and excluded parts of the model that do not satisfy the ‘reasonable prospects test’ from the Mineral Resources.

Cut-Off Grade

The Mineral Resources are reported within shapes that have been generated using cut-offs applied to the simplified NSR. The formula that has been used for the simplified NSR calculation is:

NSR = 0.7 × In situ value (ISV)

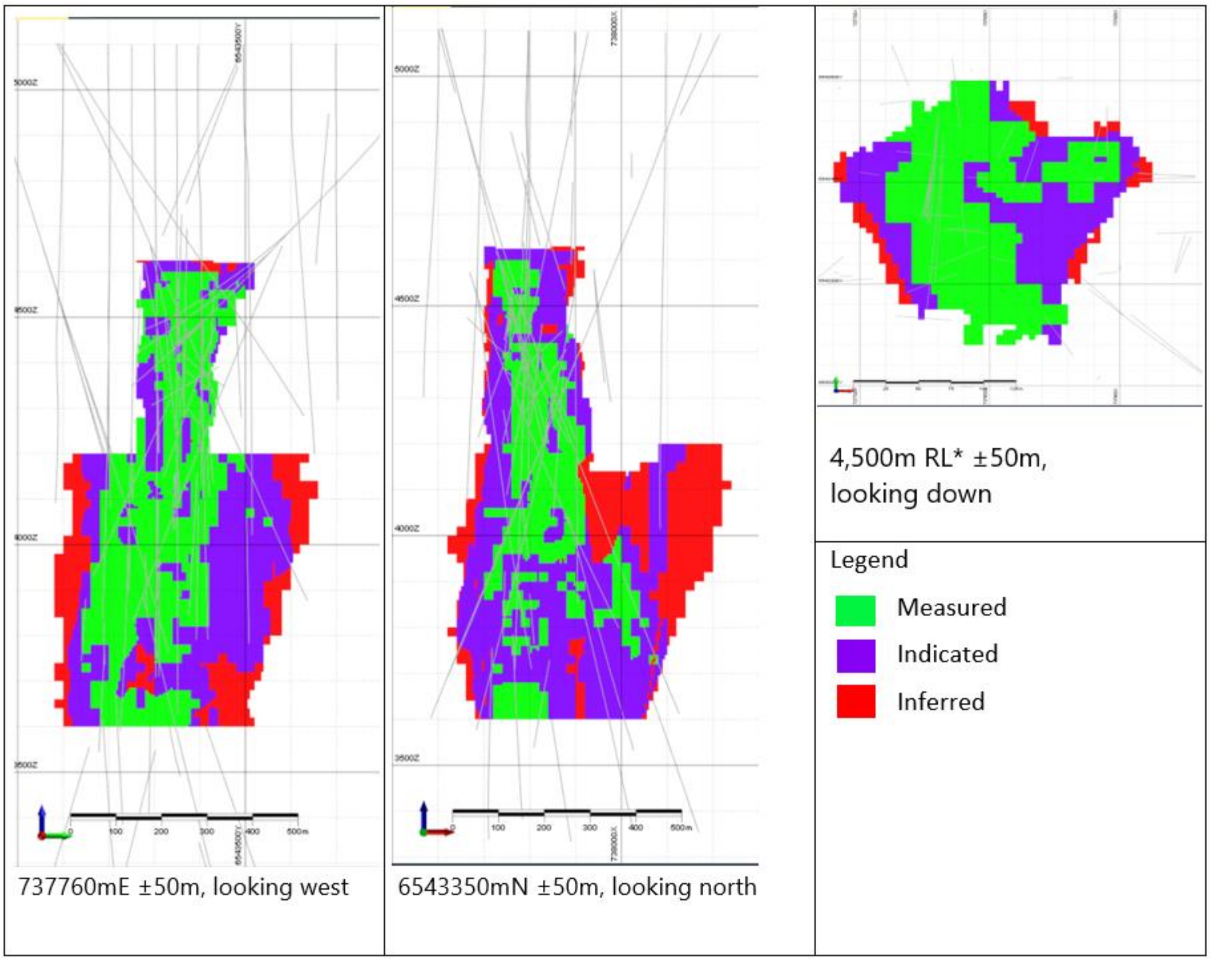
where ISV = (Cu % ÷ 100% × 2,204lb/t × USD2.96/lb + Au g/t ÷ 31.1g/oz × USD1,305/oz + Ag g/t ÷ 31.1g/oz × USD18.8/oz) ÷ 0.73USD/AUD.

Implied in the factor used to convert ISV to NSR are the following average metallurgical recoveries: 91 percent for copper, 73 percent for gold and 79 percent for silver. The difference between using the simplified formula above and a more detailed NSR formula, which accounts for variable recoveries and penalties, was not considered to be significant for the purposes of this Mineral Resource estimate.

Above 4,200m RL, the Mineral Resource is reported within a shape that has been generated using a cut-off of A$70 per tonne, being the expected combined mining, milling and GA costs, assuming that the mineralisation is amenable to mining by SLC. No cut-off has been applied to Mineral Resources inside the A$70 simplified NSR cut-off shape.

Between 3,600m RL and 4,200m RL, the Mineral Resource is reported within a shape that has been generated using a cut-off NSR of A$20 per tonne, being the expected combined mining, milling and GA costs excluding sustaining capital assuming that the mineralisation is amenable to mining by BC. No cut-off has been applied to Mineral Resources inside the A$20 NSR cut-off shape.

For each case, the shape was generated by digitising a single polygon around blocks above the cut-off on 20 m levels. These polygons were the refined to ensure a 3D shape that was realistic given the proposed mining option. To achieve this, in places some blocks below the cut-off were included, especially on the periphery. No separate internal waste shapes were defined as the likelihood of selectively recovering such material during mining is very low in such an operation. Minimum and maximum polygon areas for the BC option are around 150,000 m^2 and 345,000 m^2 respectively, which equate to circles with diameters of 440 m and 660 m respectively. Minimum and maximum polygon areas for the SLC option are around 30,000 m^2 and 50,000 m^2 respectively, which equate to circles with diameters of 200 m and 250 m respectively.



* Australian Height Datum = 5000m RL. The topographic surface above the Mineral Resource is approximately 5100m RL.

Figure 2: Mineral Resource showing Block Classification within the Nominal A$70/t NSR Cut-Off Shape for Blocks Above 4,200m RL and within the Nominal A$20/t NSR Cut-Off Shape for Blocks Below 4,200m RL

Mining and Geotechnical

Carrapateena has a high-grade core of bornite and chalcopyrite-rich mineralisation that is considered amenable to mining by SLC. For the purpose of this statement, it is assumed that SLC will be a suitable method for extraction of the high-grade mineralisation and this is supported by the 2017 Feasibility Study. The SLC mining parameters are based on 25 metre level spacing and 15 metre drill drive spacing.

Below the 4,200m RL, the mineralisation is suitable for BC based on updated work in the 2019 Scoping Study. BC mining parameters are based on a maximum footprint depth of 1,500 metres.

This Mineral Resource does not account for mining recovery, however the nature of the 'reasonable prospects' shape, and the reporting of all material within it regardless of NSR, means that some dilution is already accounted for in the Resource estimate.

Processing

Metallurgical test work studies on representative samples selected via a geometallurgical study have shown that a conventional crushing, grinding and flotation circuit would produce acceptable concentrate grades and metal recoveries. Metal recoveries used in the 2017 Feasibility Study averaged 91 percent for copper, 73 percent for gold and 79 percent for silver.

Environment

The Carrapateena deposit is located on Mineral Lease 6471. This lease has an approved Program for Environmental Protection and Rehabilitation (PEPR) as required under the South Australian Government *Mining Act 1971* (SA) and is in good standing.

Reasonable Prospects

- The 2017 Feasibility Study supports an underground mining operation using SLC above 4,200m RL.
- The reasonable prospects shape above 4,200m RL was generated based on a cut-off simplified NSR of A$70 per tonne assuming mining by SLC.
- The 2019 Scoping Study investigates the possible underground mining operation using BC between 4,200m RL and 3,600m RL.
- The reasonable prospects shape between 3,600m RL and 4,200m RL was generated based on a cut-off simplified NSR of A$20 per tonne assuming mining by BC.
- Given the likely mining method, the classification also accounts for the expected contiguity of material above cut-off.
- Metallurgical test work indicates that a saleable concentrate can be produced.
- Reporting of the Resources has been limited to above 1,500 metres below surface (3,600m RL) as mineralisation below 3,600m RL does not pass the current reasonable prospects test.

Dimensions

- The deposit geometry is generally pipe-like, with the lateral extent reducing with depth. Limits of the Mineral Resource are listed in Table 2.

Table 2: Dimensions of the Mineral Resource

Region	Dimension	Minimum	Maximum	Extent (m)
Upper	Easting	737,665	737,940	275
	Northing	6,543,190	6,543,530	340
	RL	4,200	4,630	430
Lower	Easting	737,590	738,270	680
	Northing	6,543,010	6,543,765	755
	RL	3,600	4,200	600
Combined	Easting	737,590	738,270	680
	Northing	6,543,010	6,543,765	755
	RL	3,600	4,630	1,030

JORC 2012 EDITION, TABLE 1

SECTION 1 Sampling Techniques and Data

Criteria	Comments
Sampling techniques	All basement samples consist of diamond drill core (NQ, NQ2, HQ and PQ) cut with a manual or automatic core saw. The drill core is sampled as half core, except for PQ core, metallurgical holes and field duplicates, where quarter core was sampled. The method of sampling is considered to be of an acceptable quality for the estimation of Mineral Resources. All available basement drill core prior to 2016 was sampled. Where 2016 resource drill holes intersected large intervals of basement granite distal to the mineralisation zone, drill core was sampled at one metre intervals every second metre. All other available basement drill core from 2016 resource drilling was sampled. Sampling interval is generally 1 metre but respects geological contacts in places. Entire samples were crushed then pulverised to a nominal 90 percent passing 75 microns. The resulting pulps were analysed using a variety of methods, which included multi acid digest with ICP-OES determination for copper and fire assay with AAS for gold (40g or 20g charge). Sub-sampling, sample preparation, assay methods and assay quality are discussed in other parts of this table.
Drilling techniques	For Teck Cominco Australia Pty Ltd (Teck) drill holes, a combination of RC and mud-rotary was used for pre-collars. HQ diamond drilling was used through to top of basement and NQ through basement to EOH. For OZ Minerals drill holes, diamond drilling was used from surface with a combination of PQ, HQ and NQ2 core sizes. 70 percent of Teck drill holes were vertical to sub-vertical, 2 holes were angled (non-vertical) from surface, and 13 holes were wedges off a sub-vertical parent hole. All OZ Minerals drill holes were angled from surface. For angled and wedge holes, core was orientated using an ACE, ACT or Coretell core orientation tool.
Drill sample recovery	Length based core recovery is measured from reassembled core for every drill run. The data were recorded in a SQL Server database via a GBIS front end. Average core recovery was high with more than 99 percent recovered through the mineralised zone. The style of mineralisation and drilling methods employed lead to very high sample recovery, so no further effort was considered necessary to increase core recovery. 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	Core samples were geologically logged by geologists and geotechnically logged by geologists (Teck drill holes) or geotechnical personnel (OZ Minerals drill holes). Logging is considered to have appropriate detail to support Mineral Resource estimation, mining studies and metallurgical studies. Core logs were qualitative and quantitative in nature. Lithology and alteration were logged qualitatively; mineralisation, structure and geotechnical data were logged quantitatively. Core was photographed both dry and wet after metre marking and orientation.

Criteria	Comments
	All core in the mineralised zone (68,016 metres, 100 percent) was logged. This included 3,602 metres of core from metallurgical drill holes that was used to guide the geological interpretation but not used in the grade estimation.
Sub-sampling techniques and sample preparation	All sampled core was cut with an automatic or manual core saw in a consistent way that preserved the bottom of hole reference line, where present. Half core was used for normal samples, quarter core for field duplicates and for three metallurgical drill holes. Samples were mostly 1 metre in length, but also ranged from 0.5 metre to 1.5 metre if adjusted to geological or major alteration boundaries. Only core samples were used in basement. Sample preparation included drying, crushing, and pulverising in full to a nominal 90 percent (OZ Minerals) or 85 percent (Teck) passing 75 microns. This is considered industry standard for this style of mineralisation. For OZ Minerals drill holes, controlled copies of Standard Operating Procedures (SOPs) and sign-offs exist for all sampling steps, all staff were adequately trained in these. Checks were made by geologists on sampling prior to loading data into the database. Sample representivity was assured by taking field duplicates, lab coarse crush, and pulp duplicates every 50 samples. Sizing data was collected for OZ Minerals holes for one in every 40 pulverised samples by the laboratory analysing the samples. Analysis of these results indicated that the sampling was representative. Analysis of duplicate data at a variety of scales, from quarter core to crushed core to pulp duplicates, indicated the sample sizes were appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	OZ Minerals received data quality reports and data for Teck drill holes, including Certified Standards, which indicated the raw data were suitable as a basis for Mineral Resource estimation. Samples sent to the Bureau Veritas (Amdel) Adelaide Laboratory by Teck had copper and silver grades determined by IC3E (ICP-OES), with 'high grade' copper (>1 percent) undergoing reanalysis by MET1 (ICP-OES). Gold grades were determined via FA2 (Fire Assay, 20g, AAS). Samples sent by Teck to Genalysis in Perth had copper grades determined by four acid digest and ICP- OES, with 'high grade' analysis (Cu >1 percent) determined by modified four acid digest and ICP-OES. Gold at Genalysis was determined by Fire Assay finished by flame AAS. Uranium was analysed using lithium metaborate fusion (Bureau Veritas, Adelaide) or sodium peroxide fusion (Genalysis, Perth) followed by ICP- MS. For OZ Minerals drill holes, copper grades were determined using a modified aqua regia digest with ICP-OES determination at Bureau Veritas Adelaide Laboratory. Gold grades were determined by 40g Fire Assay finished by AAS at Bureau Veritas Adelaide Laboratory (Amdel). For both Teck and OZ Minerals assay results, the techniques are considered to be total for all relevant elements with the exception of sulphur (Teck, ICP-OES) which is near-total. For Teck drill holes, assay data quality was determined through submission of field and laboratory standards, blanks and repeats which were inserted at a nominal rate of 1 each per 20 drill samples. For OZ Minerals drill holes, assay data quality was monitored through submission of standards and blanks every 25 samples, quarter core field duplicates and lab

Criteria	Comments
	coarse crush and pulp duplicates every 50 samples. Analysis of results from these samples showed that levels of bias, precision and contamination are within limits that are considered acceptable. Teck sent a selection of coarse rejects and pulps to an umpire laboratory for analysis. Comparison of results between laboratories did not reveal any significant problems. OZ Minerals submitted two batches of check assays each to two umpire laboratories. Comparison of the results between laboratories did not reveal any significant problems. Quarterly QA/QC reports commenced from the June 2012 quarter. Minor differences exist in the accuracy and precision of data between drilling campaigns (Teck using Amdel, Teck using Genalysis, OZ Minerals using Bureau Veritas Amdel), but the differences are not considered to be significant, and the results are considered to be acceptable.
Verification of sampling and assaying	Documented verification of significant intervals by independent personnel has not been done, however the mineralisation appears to be reasonably continuous and is not dominated by any one significant intersection. Furthermore, the tenor of copper is visually predictable. The assay data for all Teck drill holes were imported from source lab text files into the OZ Minerals database by an external company (Expedio), and the results were compared with the database supplied by Teck. Several drill holes were wedged providing close-spaced data from which short scale variability was assessed. OZ Minerals drilled several holes around Teck drill hole CAR050 to confirm grade and geological continuity. Two pairs of twin holes were drilled through the Mineral Resource for metallurgical testing. A review of data from these holes reveals very strong correlation of geology and grades. Primary data is stored both in its source electronic form, and, where applicable, on paper. Assay data is retained in both the original certificate (.pdf) form, where available, and the text files received from the laboratory. Data entry, validation and storage are discussed in the section on database integrity below. 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	All collar locations for drill holes prior to 2016 were determined by DGPS. All collar locations for 2016 drill holes were determined by Garmin 62S Handheld GPS. The locations have been cross checked using DGPS and are within an error of ± 9 metres. Teck drill holes had downhole surveys (about every 30 metres) by multiple methods including Ranger Multi-Shot survey tool, Wellnav SRG (surface recording gyro) and Eastman Camera surveys. For OZ Minerals drill holes, magnetic downhole surveys were taken at nominal 30 metre intervals using digital Reflex EZ-Trac equipment. Completed holes were gyro surveyed using a conventional Reflex Gyro E537 tool. An APS GPS-based system was used to determine the reference azimuth at the collar. Due to difficulties with establishing the collar reference azimuth, some OZ Minerals holes use as a reference azimuth a calculated "best-fit" with EZ-Trac (magnetic) surveys in non-magnetic ground in the cover sequence. To minimise the effect of drift of azimuth measurements with the conventional gyro, an average of multiple runs was normally used, generally two runs up to June 2012, and four runs from that date onwards. Some holes were surveyed by Surtron Pty Ltd and/or ABIM Solutions Pty Ltd using a north-seeking gyroscope.

Criteria	Comments
	The grid is MGA94 zone 53. Local elevations have been used, where 5,000m RL is equal to Australian Height Datum. A DTM was flown for Teck in 2007, and over an expanded area for OZ Minerals in April 2012. The 2012 DTM was consistent (±1.6 metres maximum) with the DGPS collar pickups for drill holes affecting the Mineral Resource.
Data spacing and distribution	No Exploration Results are reported in this statement. Drill testing the spatial extent of the prospect started with a 200 metre x 200 metre grid sequence, with 100 metre x 100 metre infill drilling commencing in September 2006. Two infill holes with four additional wedges were drilled to 50 metre spacing (north-south) in the bornite zone in the south west of the deposit. After late 2011, OZ Minerals drilled non-vertical holes with the intention of better defining the limits of the copper mineralised zones. The holes were drilled in a variety of directions and so the spacing between holes was not uniform. The spacing is typically less than 50 metres in the upper part of the Measured and Indicated parts of the Mineral Resource, becoming wider at depths below 3,800m RL and in the Inferred part of the Mineral Resource. The data spacing and distribution is considered sufficient to establish geological and grade continuity appropriate for the Mineral Resource estimation and classification. Compositing of sample data to 4 metre lengths is discussed in Estimation and Modelling Techniques below. No physical compositing of samples has occurred.
Orientation of data in relation to geological structure	The Hematite Breccia that hosts the mineralisation is generally massive (at the scale of interest) with little internal structure. The deposit is interpreted as steep on the south and west sides. The edges of the main high-grade zone constituting the Measured and Indicated parts of the Mineral Resource are now reasonably well defined in the upper part of the deposit. The original Teck drilling was mostly vertical but the OZ Minerals infill drilling program consisted of deep angled holes to better define the boundaries of the steeply plunging mineralisation. In 2016, the drilling was specifically designed to intersect the mineralisation at shallow angles (between 25 and 55 degrees) as such angles of intersection were lacking prior to 2016. Some of the Inferred part of the Mineral Resource, particularly the upper part of the eastern mineralisation (mostly east of 738,000mE, above 4,100m RL), still relies primarily on vertical drill holes at 100 metres x 100 metres horizontal spacing. Structures and mineralisation boundaries through the deposit mostly appear to be sub-vertical. Angled drill holes have been used to intersect these boundaries. Within the mineralised zone, anisotropy of copper grade varies locally. A variety of drill hole orientations have been used to minimise the possibility of bias being introduced by drill hole orientation. The mineralisation occurs mostly as disseminated sulphides and does not show a strong structural fabric at drill-core scale. Angled drilling by OZ Minerals has not highlighted any orientation-specific sampling biases.
Sample security	Samples were transported from site to the laboratories by road. For OZ Minerals drill holes, despatches listing samples were sent electronically to the laboratory. Any discrepancy between listed and received samples was communicated back to site staff for resolution.

Criteria	Comments
Audits or reviews	An internal audit of Teck's Carrapateena database was conducted in 2008. This study identified a significant proportion (9 percent) of failed QA/QC samples in the Teck database at that time. During 2007 and 2008, a total of 9,007 samples, including QA/QC samples, coarse rejects and quarter core from an entire hole (CAR051W1) were sent to an umpire laboratory (Genalysis, Perth) for reanalysis. Minor contamination issues were concluded to have affected Amdel results but were not deemed to have a significant impact on the data. An external audit of Bureau Veritas Amdel Adelaide was undertaken by ioGlobal in October 2012. OZ Minerals geologists conducted three inspections of Bureau Veritas Amdel Adelaide during the 2011 to 2013 drilling campaign. Minor issues were noted on both the audit and inspections but were not considered to be material overall. AMC Consultants Pty Ltd undertook a review of the data collection and sampling procedures during an audit of the Mineral Resource estimate between 30 September and 3 October 2013. AMC formed the view that the data collection procedures were industry standard practice, with the exception of the monitoring of the quality control samples, which did not appear to be being undertaken on a batch by batch and continuous basis. OZ Minerals accepts AMC's view, but does not believe that this issue has had a material effect on the quality of the data, as the systematic monitoring of quality control samples occurred on a periodic basis prior to modelling in any case. Data from the 2016 drilling campaign has not been subject to external audit or review, but OZ has conducted internal checks, which have not revealed any material issues.

SECTION 2 Reporting of Exploration Results

Criteria	Comments
Mineral tenement and land tenure status	The Carrapateena deposit is located in South Australia in Exploration Licence 4903 which is held by OZ Minerals Carrapateena Pty Ltd (34 percent) and OZM Carrapateena Pty Ltd (66 percent), both wholly owned subsidiaries of OZ Minerals Limited. The tenement is located on the traditional lands of the Kokatha people. EL4903 is currently in good standing. No known impediments exist to obtaining a licence to operate in the area.
Exploration done by other parties	The Carrapateena deposit was discovered in 2005 by RMG Services Pty Ltd. The approximate lateral extent of the mineralised zone was defined by drilling carried out during 2006 to 2008 by a joint venture between RMG Services Pty Ltd and Teck Cominco Australia Pty Ltd. The project was acquired by OZ Minerals in 2011.
Geology	The Carrapateena Breccia Complex is located within the Olympic copper gold (Cu-Au) Province on the eastern edge of the Gawler Craton. It is hosted within Donington Suite granite and is unconformably overlain by approximately 480 metres of Neoproterozoic sediments. Mineralisation and alteration is in the form of that seen at other large South Australian iron oxide copper gold (IOCG) deposits including Prominent Hill and Olympic Dam.
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 company is currently undertaking a Pre-Feasibility Study (PFS) assuming a SLC mining method. Further resource definition work will be planned based on the outcomes of this study.

SECTION 3 Estimation and Reporting of Mineral Resources

Criteria	Comments
Database integrity	Data is stored in an SQL Server database and is entered via a GBIS front end. Assay data were loaded from text files supplied by the laboratory directly into the database without manual transcription. Core logging for OZ Minerals holes was directly into the database using Toughbooks. Weight measurements for density were keyed into the database up to 16 March 2012, and then automated data capture was used from that date onwards. Core length measurements for recovery were made on paper prior to entry into the GBIS database. Whenever records are added or modified, the database records the time, date and the identity of the user entering or changing the data. Different user profiles and security settings exist to minimise the possibility of inadvertent modification of data. Lookup codes are used to ensure consistency of the way data are recorded and for referential maintaining integrity of the database. Assay and density data were reviewed visually for reasonableness and also through using statistical plots. Outliers identified were investigated and corrected as required. The Teck historical data loaded from source laboratory files was compared with the database handed over by Teck.
Site visits	The Competent Person has visited the Carrapateena site a total of 10 times since OZ Minerals acquired the Project. 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.
Geological interpretation	Confidence in the geological interpretation varies locally, and is dependent on the spacing of drilling as well as the continuity of mineralisation, both of which vary throughout the deposit. At deposit scale, the hematite breccia zone appears to be quite continuous, but its limits at depth are not yet well-defined. A subset of the hematite breccia zone contains significant copper mineralisation. Bornite-dominant and chalcopyrite-dominant zones appear as distinct clusters on scatter plots of copper and sulphur grades. The interpreted high copper grade domains were constructed using a combination of copper grade, ratio of Cu:S (adjusted for the assumed presence of sulphur in barite), and visual logs of lithology and mineralisation. Delimiting grade criteria for the chalcopyrite-dominant zone were typically copper exceeding 1.5 percent and Cu:S between 0.8 and 1.25. Bornite-dominant mineralisation generally had Cu:S exceeding 1.25. Copper in the bornite-dominant zone was usually more than 1.5 percent copper but locally some zones having lower copper grades than this were included in this domain. Chalcopyrite-dominant zones are often but not always adjacent to zones of bornite mineralisation. Confidence in the boundaries and continuity of the bornite-dominant and chalcopyrite-dominant high copper grade domains are commensurate with their classification. The mostly low-grade mineralisation in the north, east, and at depth, is less continuous and has consequently been classified mainly as Inferred. Confidence decreases with depth as the distances between drill holes becomes wider. Both the hematite breccia zone and the copper-mineralised zones are open at depth. The geological interpretation was based on drill core data, including geochemical data, and core logs and photos. Core logs, photos and, where appropriate, assays from metallurgical holes were also used to guide the interpretation. The geological model is interpreted to be a near-vertical body of hematite dominated breccia hosted within altered granite. Holes drilled by Teck up to 2008 were mostly sub-vertical, and these have in some cases been assumed to be near-parallel to geological and mineralisation boundaries. This interpretation has mostly been confirmed by drilling by OZ Minerals Limited since 2011 using angled drill holes. It has been assumed that near-vertical boundaries continue at depth where there is limited data. Alternative, plausible interpretations in the upper part of the deposit may have a moderate effect on estimated grades at a local scale.

Criteria	Comments
	Copper sulphide mineralisation is mostly hosted in a hematite breccia zone within altered granite. The deposit is overlain by mostly unmineralised sediments. There is evidence of a leached zone lacking copper mineralisation at the top of the hematite breccia zone immediately below the unmineralised sediments. The Mineral Resource is restricted to mineralisation hosted in the hematite breccia zone. Copper grades are generally highest where bornite is the dominant copper sulphide, although there is also a high grade chalcopyrite dominant zone. Chlorite alteration is present in some parts of the deposit. Where chlorite is abundant, copper and gold grades are generally low. Continuity of zones of chlorite alteration can be quite variable and zones with abundant chlorite have not been modelled separately. Dykes are present within the hematite breccia zone and in the granite, but they are not necessarily barren of copper and are not considered to have a significant effect on the estimated Mineral Resource. Gold-only mineralisation is present in some parts of the hematite zone where only trace concentrations of copper are present. Copper mineralisation is generally accompanied by gold mineralisation, although gold grades vary.
Dimensions	The maximum extents of the upper Mineral Resource inside the A$70/t NSR cut-off shape are 275 metres (X) x 340 metres (Y) x 430 metres (Z). The maximum extents of the lower Mineral Resource inside the A$20/t NSR cut-off shape are 680 metres (X) x 755 metres (Y) x 600 metres (Z). The deposit geometry is generally pipe-like with the lateral extent decreasing with depth. The topographic surface over the mineralisation is at approximately 5,100m RL. The depths from surface to the upper and lower limits of the combined Mineral Resource are approximately 485 metres and 1,500 metres respectively.
Estimation and modelling techniques	Domain definition used a combination of assay data and geology, taking into consideration the characteristics of the breccia, the mineralogy of copper and iron, and the copper and iron grades. There are distinct differences in copper grade population statistics between lithological domains and changes in grade at lithological domain boundaries. Mineralisation domains were derived primarily from the lithological domains but modified for the presence of leached zones and differences in copper sulphide mineralogy. Mineralisation domains were used for the estimation of Cu, Ag, U, Co, S and Ba. Gold was estimated using the same domains as for Copper except that the Bornite domain was extended into the adjacent BHMX domain to accommodate elevated Au grades that were consistent with those in the Bornite domain. Lithological domains were used for the estimation of specific gravity, carbon and the important major rock-forming elements iron, magnesium and silicon. Four additional domains were created for estimation of fluorine because of the distinctly bimodal grade populations in the main copper mineralised domains. The mineralisation domains relevant for the estimated Mineral Resource are: • Pyrite-chalcopyrite in main copper-mineralised zone • Chalcopyrite in main copper-mineralised zone • Bornite in main copper-mineralised zone • Bornite in main gold-mineralised zone • Eastern copper-mineralised zone • Deep high-grade copper zone (mixed bornite and chalcopyrite) • Barren hematite zone • Thin gold enriched zones above the Pyrite, Chalcopyrite and Bornite zones • Thin Leached zones above the Pyrite, Chalcopyrite and Bornite zones • A larger, sub-vertical Leached zone in the upper northwest part of the mineralisation

Criteria	Comments
	The block model used for the current estimate was compared with the 2015 estimate. The differences in tonnages and grades at a range of cut-off grades were in line with those expected as a consequence of the additional data and changes to domains and estimation parameters for the current Mineral Resource. In addition, several check estimates were run using different top-cuts and search neighbourhood parameters with results showing only minor differences to the base case. There has been no historical mine production from the Carrapateena deposit. The current assumption is that revenue will only be obtained from copper, gold and silver. Grades were estimated independently for Cu, Au, Ag, U, F, Fe, SG (as measured), and Weight Loss on Drying. Sulphur and barium were also estimated using the same parameters as copper to ensure that the same composites were used with the same Kriging weights as for copper, because the purpose of estimating these elements is to assist in distinguishing the sulphide/sulphate mineralogy. Cobalt was estimated using the same parameters as copper. Carbon, magnesium and silicon were estimated using the same parameters as iron. A sub-blocked model was used, having a parent block size of 20×20×20 metres, with sub-blocks down to 5×5×5 meters to honour domain boundaries. Parent cell estimation was employed. Sample spacing varies widely. In the vertical direction, composites are spaced at 4 metres downhole. In the horizontal plane, the spacing between holes is not uniform. In the higher-grade core of the deposit, the spacing is less than around 30x30 metres locally, but generally targeted to 50×50 metres, increasing to ~100×100 metres outwards from here. Since holes have been angled to obtain information on lateral controls, the horizontal spacing varies. Blocks and sub-blocks in this estimate were made sufficiently small as to provide resolution of domain geometry in the block model. The block size chosen does not imply a selective mining unit size. Blocks having grades below cut-off surrounded by blocks having grades above cut-off do not constitute a significant proportion of the Mineral Resource. Strong correlations exist between some variables. Variables have been estimated independently. Other than fluorine, carbon and weight loss on drying, all other variables estimated are fully assayed and estimated using similar domains, methods and parameters, meaning that the data assists to preserve any correlation between the variables at the block scale. Geological interpretation guided the selection of domains, along with exploratory data analysis, particularly of copper and sulphur. The Carrapateena Breccia Complex was treated as a limit for the estimated Mineral Resource, although localised zones of copper mineralisation exist beyond this. The impact of very high-grade composites was restricted using top-cuts, which generally were around the 99th percentile of the distribution of grades of 4 metre composites for most variables, and the 1 metre composites for fluorine. Check estimates revealed that the choice of top-cuts did not have a material effect on the estimate. 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. Statistical validation included 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 curve of estimates against grade tonnage curves derived from the previous estimate.

Criteria	Comments
Moisture	Tonnages are estimated on a dry basis. Although core recovery is very high (>99 percent) and core is competent and of very low porosity, a small moisture adjustment has been made to measured SG when calculating dry density. Received and dried sample weight measurements were taken at the Bureau Veritas (Amdel) Adelaide laboratory for OZ Minerals drill holes. The percentage difference (weight loss on drying) has been treated as a separate variable for estimation. The dry density from which tonnages were estimated was calculated for each block after correcting for the estimated weight loss on drying. Weight loss on drying averaged 0.3 percent.
Cut-off parameters	A shape generated using a cut-off simplified NSR (net smelter return) of A$70/t has been used for the reported Mineral Resource above 4,200m RL, assuming mining with SLC. The value of $A70/t was recommended by OZ Minerals' mining engineers as the value which covers expected mining, processing and site G&A costs, while still maintaining acceptable continuity of mineralisation above cut-off. A shape generated using a cut-off simplified NSR of A$20/t has been used for the reported Mineral Resource below 4,200m RL, assuming mining with BC. The value of $A20/t was recommended by OZ Minerals' mining engineers as the value which covers expected mining, processing and site G&A costs, while still maintaining acceptable continuity of mineralisation above cut-off. The formula that has been used for the simplified NSR calculation is: NSR = 0.7 × In situ value (ISV) where ISV = (Cu % ÷ 100% × 2204lb/t × USD2.96/lb + Au g/t ÷ 31.1g/oz × USD1305/oz + Ag g/t ÷ 31.1g/oz × USD18.8/oz) ÷ 0.73USD/AUD. Economic assumptions used for the simplified NSR formula are provided below. They are drawn from OZ Minerals life-of-mine (LOM) Corporate Economic Assumptions released in Quarter 3 2016 and are the consensus values of major brokers issued in July 2016. Assumptions — Unit — LOM Copper — US$/lb — 2.96 Gold — US$/oz — 1305 Silver — US$/oz — 18.8 Exchange Rate — AUD/USD — 0.73 Implied in the factor used to convert ISV to simplified NSR are the following average metallurgical recoveries: 91 percent for copper, 73 percent for gold and 79 percent for silver. The difference between using the simplified formula above and a more detailed NSR formula, which accounts for variable metallurgical recoveries and penalties, was not considered to be significant for the purposes of this Mineral Resource estimate.
Mining factors or assumptions	Carrapateena has a core of bornite and chalcopyrite-rich mineralisation that is amenable to SLC. For the purpose of this statement, it is assumed that SLC will be a suitable method for extraction of the higher-grade mineralisation above 4,200m RL and the 2017 Feasibility Study supports this. The higher-grade SLC core between 4,200m RL and 3,600m RL is surrounded by a contiguous zone of mineralisation that has been investigated in this Scoping Study for amenability to a BC mining operation at a lower cut-off. The SLC mining parameters are based on using 25 metre level spacing and 15 metre drill drive spacing and the BC mining parameters are based on a single block cave from the 4,200m RL down to extraction from the 3,600m RL level. Extraction of the Resources has only been extended to a depth of 1,500 meters as mineralisation below 3,600m RL does not pass the current reasonable prospects test. This Mineral Resource does not account for mining recovery.

Criteria	Comments
Metallurgical factors or assumptions	Metallurgical test work on representative samples selected via a geometallurgical study have shown that a conventional crushing, grinding and flotation circuit would produce acceptable concentrate grades and metal recoveries. Metal recoveries used in the 2016 Pre-Feasibility Study averaged 91 percent for copper, 73 percent for gold and 79 percent for silver.
Environmental factors or assumptions	The Carrapateena deposit is located on Mineral Lease 6471. This lease has an approved Program for Environmental Protection and Rehabilitation (PEPR) as required under the South Australian Government *Mining Act 1971* (SA) and is in good standing.
Bulk density	The water immersion method was used for density determination. For Teck drill holes, the density was determined from a sample from almost every second metre of core in basement. For OZ Minerals drill holes in basement, the density was determined for the entire length of every metre for NQ core, or a representative sample from every metre of HQ or PQ core. OZ Minerals routinely repeated measurements and also had two standards each made of aluminium and titanium for QA/QC purposes. The mineralised material is not significantly porous. Moisture has been estimated as described in the Moisture criterion in this table. The lithological domains were considered to be suitable for use as domains for density estimation.
Classification	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. OZ Minerals provided advice to the Competent Person relating to the quality of the data and the confidence in the interpretations of geology and mineralisation. The quality of the estimation of grades and density 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 copper estimate. The confidences in the interpretations and copper estimate were then integrated, resulting in annealing of the classification in places. Finally, those parts of the model which were unlikely to satisfy the 'reasonable prospects test' (reasonable prospects for eventual economic extraction), were excluded from the resources, mainly on the basis of contiguity, dimensions and grade within the context of the proposed mining method of SLC. The Competent Person has checked, reviewed and integrated all of this information and subsequently assigned a classification of Measured, Indicated or Inferred Mineral Resource to the estimates; and excluded parts of the model that do not to satisfy the 'reasonable prospects test' from the Mineral Resources. 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 6 March 2019 has not been audited. A previous Carrapateena Mineral Resource estimate (as at 31 October 2012) was audited by AMC Consultants Pty Ltd during 2013 to assess whether it was suitable for use in a Pre-Feasibility Study (PFS). The 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 fit for purpose. The conclusions of the 2013 AMC audit were considered, and where appropriate, modifications to the estimation processes were incorporated into subsequent models, including the model on which the current Mineral Resource is based.

Criteria	Comments
Discussion of relative accuracy / confidence	Factors affecting global accuracy and confidence of the estimated Mineral Resource at the selected cut-off include: • Conditional biases of estimated grades caused by the use of Ordinary Kriging. This has been mitigated by the introduction of a chalcopyrite-dominant domain, for which copper grades typically exceed 1.5 percent. This roughly coincides with the selected cut-off grade, so in general the boundaries of the chalcopyrite and bornite domains with lower-grade domains tend to coincide with the limits of the reported Mineral Resource. Within the bornite-dominant domain, there are some small zones having grades below cut-off that were not treated as a separate domain for copper estimation, and so smoothing of estimated grades in this domain will introduce local conditional biases of estimated copper grades. However, below-cut-off material makes up a relatively small proportion of the bornite domain so the effect of this on the accuracy of the estimated Mineral Resource is not expected to be large. • Uncertainty of the position of domain boundaries, which is largely due to the arrangement of drill hole intersections. The size of the mineralised domain wireframes has a direct effect on the estimated tonnage of the Mineral Resource, with the 2016 estimate demonstrating the impact of the interpreted volume of the Bornite domain on mean grade. The classification of the Mineral Resource has taken into consideration to the confidence in the position of domain boundaries given the distribution of drill hole data. • The Mineral Resource estimate reported assumes sufficient local-scale detail to be useful for the preliminary technical and economic evaluation of a SLC mining method. • There has been no production from the Carrapateena deposit 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 Stuart Masters, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (108430) and a Member of the Australian Institute of Geoscientists (5683). Stuart Masters is a full-time employee of CS-2 Pty Ltd and has no interest in, and is entirely independent of, OZ Minerals. Stuart Masters 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). Stuart Masters consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Stuart Masters BSc (Geology), CFSG, has over 32 years of relevant and continuous experience as a geologist including 14 years in Iron-Oxide-Copper-Gold style deposits. Stuart Masters has visited site on 10 occasions since OZ Minerals acquired the project, including once since the Mineral Resource was reported in September 2015.

Stuart Masters
CS-2 Pty Ltd

Contributors

- Overall
  - Stuart Masters, CS-2 Pty Ltd
- Data Quality
  - John de Little, OZ Minerals (previously)
- Geological Interpretation
  - John de Little, Bruce Whittaker, OZ Minerals
- Estimation
  - Stuart Masters, CS-2 Pty Ltd
- Economic Assumptions
  - Rod Hocking, Heather Pearce, OZ Minerals

Stuart Masters is solely responsible for Mineral Resource classification but has relied on, and checked and reviewed, data and advice from OZ Minerals' geologists regarding data quality and interpretation.

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