

## **GOLD MINERAL RESOURCES & RESERVES ANNUAL UPDATE**

Mincor Resources NL (ASX: MCR) provides updated annual gold Mineral Resource and Reserve estimates for the Company's 100%-owned Widgiemooltha Gold Project (WGP) as at 30 June 2018.

The updated Resource and Reserve estimates reflect information obtained from recent pre-production and ore mining programs, including the data generated from grade control drilling programs prior to the FY18 year-end.

The estimated gold Mineral Resources stand at **5.3 million tonnes** @ **1.9g/t for 322,900oz of contained gold** and gold Mineral Ore Reserves stand at **870,000 tonnes** @ **2.6 g/t for 72,900oz of contained gold**. For the latest technical summaries for both the Mineral Resource and Ore Reserve estimates, please see below.

The WGP is located 1.5km west of Widgiemooltha and 30km southwest of Kambalda in the Goldfields region of Western Australia (Figure 1). Mincor has entered into a 12-month tolling treatment agreement with Westgold Resources Limited's subsidiary Avoca Mining Pty Ltd to treat WGP ore at the Higginsville gold processing plant, located some 25km away. Ore processing under this agreement commenced in July 2018.

There remains significant exploration upside and opportunities to grow the Resources and Reserves at the WGP. Numerous shallow high-quality intersections are yet to be captured in the Mineral Resource inventory and remain open along a highly prospective 5.5km long shear corridor (Figure 2).

The updated annual numbers have resulted in some minor variations to Mineral Resource and Reserves when compared to those reported in the Enhanced Feasibility Study completed earlier this year (see ASX announcement, 16 March 2018).

The changes have occurred in small parts at the Flinders, West Oliver South and Bass Pits. The West Oliver South Pit incorporated grade control data which has led to the tightening and removal of the flatter lodes (Figure 3). The Bass Pit Reserves was reduced due to a post-mineralised dolerite dyke intersecting the northern pit wall, resulting in extra depletion in addition to mining. At Flinders Main, the pre-mining resource was simply depleted by the volume of material mined.

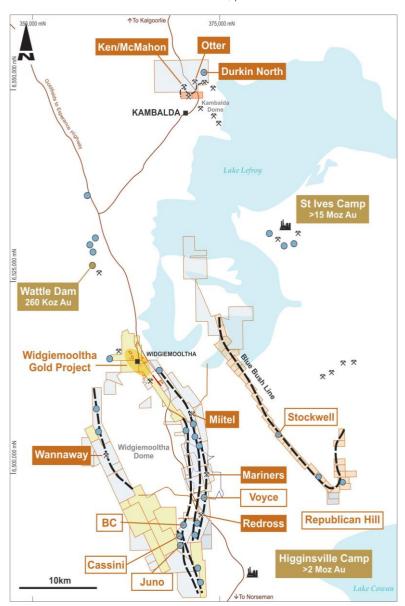


Figure 1: Widgiemooltha Gold Project location



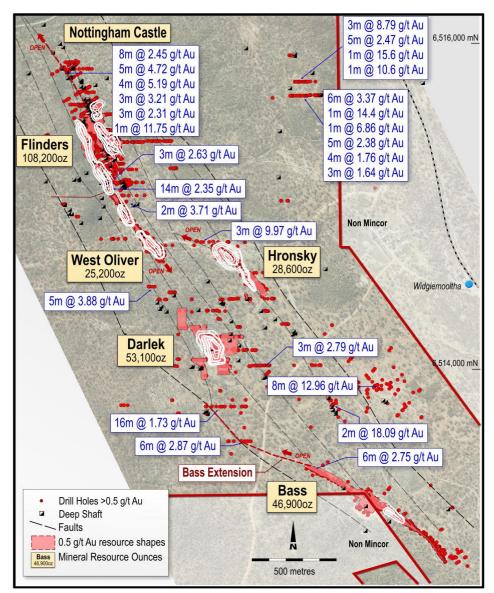


Figure 2: Widgiemooltha gold prospects and regional potential, as released to ASX on 16 March 2018

# **Technical Summary – Mineral Resource Estimation Methodology and Data**

Resource updates were completed by Mincor technical staff. Only the West Oliver South Resource was updated, all other resources are either depleted by the volume of material mined or remain unchanged.

In the last 12 months, there has been minimal gold exploration, with two small but highly successful drill programs completed in FY18 at Nottingham Castle and on resource definition drilling to upgrade the low confidence Inferred Resources that resided within the optimised pit shells. The results of these programs were not incorporated in updated Mineral Resource and Ore Reserve calculations and both opportunities can potentially be realised in the new financial year (Figure 2).

## **Geology and Geological Interpretation**

The WGP area lies approximately 4km east of the Widgiemooltha Granitic Dome in the southern part of the Archaean Norseman–Wiluna Greenstone Belt.

Locally the stratigraphic sequence of tuffaceous sediments, mafic and ultramafic rocks has been cut by northwest-trending shear zones and subjected to folding in the northeast quadrant of the tenure. The stratigraphic units are metamorphosed to Upper Greenschist–Lower Amphibolite Faces.

The project area lies in Archaean shear zone hosted gold deposits associated with mafic-ultramafic volcanics, metasediments and mafic-felsic intrusives. There is evidence of supergene enrichment within some of the project areas

The West Oliver gold mineralisation is associated with steep east dipping, northwest-trending quartz veins hosted within an interpreted strike extension of the Darlek-Flinders shear system



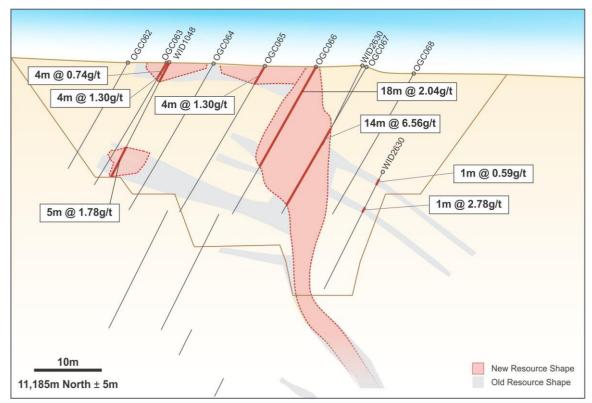


Figure 3: West Oliver cross section showing changes to interpretation and subsequent redesigned pit

## **Drilling Techniques**

Drillholes are dominantly 150mm diameter reverse circulation (RC) holes. Diamond drill-holes are HQ3 (triple tube) core for the purposes of geotechnical logging and density measurements.

## **Sampling and Subsampling Techniques**

RC samples were split by riffle splitter at the drill rig into a small calico bag for laboratory analysis and the reject collected in green plastic bags and left at the drill site.

All the samples were dry and sampled collected for assaying weighed 2kg to 5kg, which is considered appropriate for grain sizes of the material expected.

#### Sample Analysis Method

Mincor samples were sent to SGS Kalgoorlie Laboratory (SGS), a NATA accredited laboratory. The samples were oven dried and pulverised. A 50g charge weight of the resultant pulverised material is assayed using a high-grade fire assay fusion method using lead flux with a silver collector. Atomic absorption spectroscopy (AAS) is used to determine the final concentration of gold. This method is considered a total measure of gold. Grade control samples were sent to a combination of SGS and ALS in Kalgoorlie for the same analytical method.

#### **Estimation Methodology**

#### West Oliver South:

- Inverse distance to the power of two (ID2) estimation method was used to estimate gold into the 3D block model for the West Oliver South deposit.
- Variography was attempted using the 1m composite data from inside the mineralisation wireframes. Poorly structured variograms were generated. Consequently, the drilling is considered to be beyond the limits of the short-range variability of the gold mineralisation, particularly for the shallow dipping, discrete vein structure modelled. Without robust variograms, geostatistical interpolation methods were not considered appropriate, so ID2 interpolation was chosen with ellipsoids oriented to match mineralisation directions evident in the grade distribution and 3D domaining.
- Samples were composited to 1m within each estimation domain, using fixed length option and a threshold inclusion of samples at sample length 50% of the targeted composite length.
- The influence of extreme grade values was reduced by top-cutting where required. The top-cut levels were determined using a combination of top-cut analysis tools (grade histograms, log probability plots and CVs). Top-cuts were reviewed and applied on a domain basis.



- Parent block size of 2.5m x 5m x 2.5m in the X, Y, Z directions respectively was used and they were sub-blocked to 0.625m x 1.25m x 0.625m. This was deemed to be appropriate for block estimation and modelling the selectivity for an open pit operation, and to obtain accurate volume representation of the narrow discrete mineralised domains modelled.
- Gold was estimated in two passes with the first pass using optimum search distance of 25m as determined through the kriging neighbourhood analysis (KNA) process and the second run was set at 250m in order to populate all blocks.

Surpac v6.7.1 was used for modelling and estimation.

#### **Cut-off Grade**

Cut-off grade for reporting is 0.5g/t Au.

As resources occur at surface the model was constructed with a view towards selective open pit mining. Thus, a 0.5g/t Au lower cut-off was deemed appropriate.

#### **Resource Classification Criteria**

Blocks have been classified as Indicated or Inferred essentially based on data spacing and using a combination of search volume and number of data used for the estimation. Indicated Mineral Resources are defined nominally on 25m x 20m spaced drilling or less. Inferred Mineral Resources are defined by data density greater than 25m x 20m spaced drilling and confidence that the continuity of geology and mineralisation can be extended along strike and at depth.

The resource classifications are based on the quality of information for the geological domaining, as well as the drill spacing and geostatistical measures to provide confidence in the tonnage and grade estimates.

Measured Resources are run of mine (ROM) stockpiles and based on the back calculated grade control estimate allowing for planned dilution.

The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.

## **Technical Summary – Ore Reserve Estimation Methodology and Data**

#### **Material Assumptions**

The June 2018 Ore Reserves are a combination of the March 2018 Ore Reserves (ASX announcement, 16 March 2018) depleted by material mined to 30 June 2018, Flinders and Bass ore stockpiles as of 30 June 2018 and an updated Mineral Resource for West Oliver South (a subset of West Oliver).

Due to the short mine life of the project and strong outlook (consensus forecast for gold is >A\$1,600/oz), a flat gold price of A\$1,600/oz was incorporated into the financial model over the life of the Project.

Other key financial assumptions include an accumulated tax loss of A\$79.04M to end of FY17 and minimum ore toll treatment capacity of 40,000t per month.

Mincor's gold will be refined by and sold to the Perth Mint.

#### Classification

The June 2018 Ore Reserves are made up of Proved and Probable Reserves.

The Proved Reserves are based upon stockpiles at the WGP ROM, surveyed 30 June 2018.

The Probable Reserves are a subset of Indicated Resources (depleted by mining to 30 June 2018), which have been tested for financial viability.

The Ore Reserve estimation is exclusive of all Inferred material.

Less than 6% of the Ore Reserve are derived from Measured Mineral Resources, notably ore stockpiles.

#### Mining Method and Assumptions

The June 2018 Ore Reserves have used the same mining methods and assumptions as the March 2018 Ore Reserves (ASX announcement, 16 March 2018).

As at 30 June 2018, site infrastructure including site roads, haulage access, workshop facilities, administration building, and explosives magazine had been established.



Based on the mineralogy depth and configuration, all deposits were assessed as being wholly amenable to mining by conventional open pit methods.

Geotechnical pit slope parameters have been based on a detailed geotechnical assessment by a consultant.

Grade control RC drilling and re-interpretation will occur for the Flinders, West Oliver (partially grade control delineated at West Oliver South), Hronsky and Darlek deposits ahead of mining to further detail the mine design.

The majority of Bass has been mined and stockpiled ready for haulage to the processing plant. The remaining Ore Reserve has been grade controlled, delineated and is awaiting mining.

Mining dilution was applied as a 20% factor for all pits except for the Flinders Main Pit and West Oliver South Pit, where favourable orebody geometries result in the use of a factor of 10%. Mining recovery of 95% has been used in all pits.

Mining is via a range of excavator/truck matches to best optimise ore recovery. These include 100t excavator/90t fixed chassis truck, 90t excavator/40t articulated truck and 45t excavator/40t articulated truck.



Figure 1: Flinders Area, workshop and laydown yard (photo taken by Red Sparrow Drone Services)

#### **Processing Method and Assumptions**

The June 2018 Ore Reserves have used the same processing methods and assumptions from the March 2018 Feasibility Study. Toll treatment agreement executed to process ore at the Higginsville gold processing plant (ASX announcement, 16 March 2018).

Ore metallurgical test-work outcomes were generated during a program managed by consultant metallurgists.

#### **Cut-off Grades**

The June 2018 Ore Reserves have used the same cut-off grade assumptions as the March 2018 Ore Reserves (ASX announcement, 16 March 2018).

Cut-off grades have been determined specific to material weathering (oxide, transitional, fresh) and by pit area. Inputs to cut-off grade calculations were:

- Mining Contractor costs covering waste/ore differentials, grade control, ore haulage and toll treatment costs.
- Owner related, miscellaneous and on-costs based on study modelling.
- Metallurgical recoveries based on the March 2018 Enhanced Feasibility Study metallurgical test-work program.
- Application of state based and third-party royalties.
- Gold price of A\$1,600/oz.



## **Estimation Methodology**

The basis for the estimation of the Ore Reserves was the March 2018 Enhanced Feasibility Study (ASX announcement, 16 March 2018). The factors and assumptions derived from this study have driven the estimation of the June 2018 Ore Reserves.

#### **Environmental, Social and Other**

Department of Mines, Industry Regulation and Safety received and approved a Notification to Mine in March 2018.

The WGP sits wholly on granted mining lease tenements. Environmental permits (i.e. clearing permit and licence to extract groundwater (5C and 26D) have been approved. Mining permits (i.e. Mining Proposal, Mine Closure Plan and Project Management Plan) have all been granted.

The information in this Public Report that relates to Exploration Results is based on information compiled by Robert Hartley, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hartley is a full-time employee of Mincor Resources NL. Mr Hartley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Codefor Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hartley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Released by:

Nicholas Read Read Corporate Tel: (08) 9388 1474 On behalf of:

Peter Muccilli, Managing Director Mincor Resources NL Tel: (08) 9476 7200 www.mincor.com.au



## **APPENDIX 1: Gold Mineral Resources as at June 2018**

DECOLIDO	RESOURCES		JRED	INDICA	ATED	INFERRED TOT		TOTAL	TAL	
NESCONCES		Tonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	Ounces
West	Jun 2018	0	0.0	167,000	2.2	150,000	2.8	317,000	2.5	25,200
Oliver	Mar 2018	0	0.0	315,000	2.1	155,000	2.3	470,000	2.2	33,200
Jeffreys	Jun 2018	0	0.0	833,000	1.7	322,000	1.5	1,155,000	1.7	61,600
Find	Mar 2018	0	0.0	833,000	1.7	322,000	1.5	1,155,000	1.7	61,600
Dass	Jun 2018	14,000	3.6	333,000	2.0	387,000	2.0	733,000	2.0	48,000
Bass	Mar 2018	0	0.0	358,000	2.1	401,000	2.0	758,000	2.1	50,500
I lua a ala .	Jun 2018	0	0.0	250,000	2.5	144,000	1.8	394,000	2.3	28,600
Hronsky	Mar 2018	0	0.0	250,000	2.5	144,000	1.8	394,000	2.3	28,600
Darlak	Jun 2018	0	0.0	549,000	2.0	342,000	1.6	891,000	1.9	53,100
Darlek	Mar 2018	0	0.0	549,000	2.0	342,000	1.6	891,000	1.9	53,100
Flindore	Jun 2018	31,000	1.6	1,166,000	2.1	575,000	1.5	1,772,000	1.9	106,500
Flinders	Mar 2018	0	0.0	1,217,000	2.1	579,000	1.5	1,796,000	1.9	108,400
TOTAL	Jun 2018	45,000	2.2	3,298,000	2.0	1,920,000	1.8	5,263,000	1.9	322,900
TOTAL	Mar 2018	0	0.0	3,522,000	2.0	1,943,000	1.7	5,465,000	1.9	335,300

#### Notes:

- Figures have been rounded and hence may not add up exactly to the given totals.
- Resources are inclusive of Reserves reported at 0.5g/t cut-off.
- Figures have been rounded to the nearest 1,000t, 0.1g/t Au grade and 100oz.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Robert Hartley who is a full-time employee of Mincor Resources NL and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hartley consents to the inclusion in this report of the matters based on his information in the form and context in which it appears and is a Member of the AusIMM.

#### **APPENDIX 2: Gold Ore Reserves as at June 2018**

RESERVES -		PRO	VED	PROE	BABLE		TOTAL	
		Tonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	Ounces
Flinder.	Jun 2018	35,000	1.4	405,000	2.8	440,000	2.7	38,700
Flinders	Mar 2018	=	=	440,000	2.8	440,000	2.8	40,000
West Oliver	Jun 2018	-	-	103,000	2.4	103,000	2.4	8,100
west Oliver	Mar 2018	-	-	121,000	2.5	121,000	2.5	9,600
Uropelar	Jun 2018	-	-	126,000	2.7	126,000	2.7	11,100
Hronsky	Mar 2018	-	-	126,000	2.7	126,000	2.7	11,100
Darlek	Jun 2018	-	-	185,000	2.2	185,000	2.2	13,100
Dariek	Mar 2018	-	-	185,000	2.2	185,000	2.2	13,100
Dass	Jun 2018	15,000	3.4	2,000	2.6	17,000	3.3	1,900
Bass	Mar 2018	-	-	27,000	3.6	27,000	3.6	3,100
TOTAL	Jun 2018	50,000	2.0	821,000	2.6	870,000	2.6	72,900
TOTAL	Mar 2018	-	-	899,000	2.7	899,000	2.7	76,900

#### Notes:

- Figures have been rounded to the nearest 1,000t, 0.1g/t Au grade and 100oz.
- Differences may occur due to rounding.
- For further details, please see Appendix 4: JORC Code, 2012 Edition Table Report Template Sections 1, 2, 3 and 4.

The information in this report that relates to Ore Reserves is based on information compiled by Mr Gary McCrae who is a full-time employee of Minecomp Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr McCrae consents to the inclusion in this report of the matters based on his information in the form and context in which it appears and is a Member of the AusIMM.



# APPENDIX 3: JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse circulation (RC) chip samples were collected in 1m intervals.</li> <li>The whole sample was riffle split in a two-stage splitter, that produced a 75% split stored on site in plastic bags, the remaining 25% was split to a 2–5kg sample for assaying.</li> <li>The remaining 12.5% was only collected for duplicate samples, otherwise it was discarded.</li> <li>Samples were submitted to an accredited commercial laboratory, samples over 3kg in weight were 50:50 riffle split before proceeding with sample preparation.</li> <li>All samples were analysed via 50g fire assay.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Drill type is all 150mm diameter RC drilling.</li> <li>Diamond drillholes are HQ3 size.</li> <li>Mincor diamond core was orientated.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recoveries were not recorded however given the excess sample weights in the 12.5% splits which were recorded by the laboratory, recoveries were very good.
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred</li> </ul>	<ul> <li>The whole sample was collected through a cyclone and riffle split in a two-stage splitter, that produced a 75% split stored onsite in plastic bags, the remaining 25% was split to a 2–5kg sample for assaying.</li> <li>No relationship between recovery and grade was noted, and no biases were observed. Sample recovery was</li> </ul>
Logging	<ul> <li>due to preferential loss/gain of fine/coarse material.</li> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul> <li>All RC chips are geologically logged for lithology, alteration, vein percentage and oxidation.</li> </ul>
		RC chips have been geologically logged to a level of detail to support appropriate Mineral Resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	<ul> <li>Logging has been conducted both qualitatively and quantitatively – descriptions of lithologies, alteration, as well as intensity estimates on alteration and weathering, and vein percentage amount.</li> </ul>
	<ul> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	All drillholes were logged in full.
Subsampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	No diamond drill (DD) core drilling was carried out for the 2017 drilling programs.
and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul> <li>RC samples were split by riffle splitter at the drill rig into a small calico bag for laboratory analysis and the reject collected in green plastic bags and left at the drill site.</li> <li>All the samples were dry and sample collected for assaying weighed 2–5kg, which is considered appropriate for grain sizes of the material expected.</li> </ul>
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Certified standards and blanks, and duplicate samples were inserted every 10 samples within a drill sequence.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	<ul> <li>Every 30<sup>th</sup> sample has a field duplicate collected at the same time when the sample was collected. Duplicates are stored at the field office area and can be used for later confirmation the high-grade intersections and for other quality assurance/quality control (QAQC) checks.</li> <li>Pulp duplicates were systematically collected in the lab</li> </ul>
		and assayed for QAQC purposes.



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size of 2–5kg is appropriate for grain size of material for gold sampling.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Mincor samples were sent to SGS Kalgoorlie Laboratory (SGS), a NATA accredited laboratory. The samples were oven dried and pulverised. A 50g charge weight of the resultant pulverised material is assayed using a high-grade fire assay fusion method (FA50) using lead flux with a silver collector. Atomic absorption spectroscopy (AAS) is used to determine the final concentration of gold. This method is considered a total measure of gold.
		Grade control RC was sent to SGS and ALS Kalgoorlie for the same analytical method
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	In addition to Mincor QAQC samples submitted with the batch, SGS uses its own certified reference materials (CRMs) for QAQC adherence.
Verification of sampling	The verification of significant intersections by either independent or alternative company personnel.	Field and laboratory pulp duplicates were systematically analysed and compared with original sample assays.
and assaying		• Filed duplicates were collected for each 30 <sup>th</sup> interval and will be processed and analysed for confirmation purpose.
		Laboratory pulp duplicates were systematically analysed and compared with original sample assays.  Parally of the solution of the solutions of the solutio
		<ul> <li>Results show good consistency of the gold assays determined from original sample with that of the duplicates.</li> </ul>
	The use of twinned holes.	Historic rotary air blast holes were twinned with RC percussion infill holes during previous drilling campaigns.     Results confirmed the initial intersection mineralisation and geology.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul> <li>Mincor holes are logged on Microsoft Excel templates and uploaded by consultant into Datashed format SQL databases, these have their own inbuilt libraries and validation routines.</li> <li>Validation against assay, lithological and drill meta-data</li> </ul>
		was completed by the software prior to consolidation within the main Widgiemooltha database.
		Primary field data is collated into a file for each drill program and is stored in the Mincor regional and head offices. Electronic data is stored in Datashed, where it can only be changed by a database administrator.
		• Intercepts have been calculated using Datashed. Selected intercepts have been verified by manual calculation.
		The primary returned assay result was used for reporting of all intersections and in mineral resource estimation, no averaging with field duplicates or laboratory repeats was undertaken so as not to introduce volume bias.
		The database was reviewed and independent validation checks conducted by Cube Consulting Pty Ltd (Cube).
	Discuss any adjustment to assay data.	No averaging with field duplicates or laboratory repeats was undertaken so as not to introduce volume bias.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	Drillhole collars are located using a Leica Captivate RTK GPS. The survey control was SSM Widgiemooltha 35, horizontal accuracy of 0.015m, vertical accuracy 0.05m.
		<ul> <li>The drillhole collar survey accuracy would be, Positional 0.05, Vertical 0.1; these were single shots, sometimes under trees.</li> </ul>
		Downhole survey is made by Reflex tool with the measurements taken nominally at 20–30m intervals. All holes were surveyed.
	Specification of the grid system used.	Holes are picked up in MGA94 UTM 51.



Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	A surface topography digital terrain model (DTM) file (50cm contoured) was produced by recent orthophoto surveys covering the entire Widgiemooltha North Project area. This file was used in the 2017 program for validation the RLs of the drillhole collars derived from the GPS readings.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drillhole spacing for the 2017 drilling is nominally 20m x 20m within Resource areas and up to 100m between prospects. Grade control infill is either 10m x 5mm or 7.5m x 5m.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The drillhole spacing is adequate to determine the geological and grade continuity for reporting of Mineral Resource estimates (MREs)
	Whether sample compositing has been applied.	No sample compositing of field samples has been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul> <li>Hole azimuths were orientated either at 239° to 59°, and commonly 60° dips.</li> <li>Mineralised structures appear to strike at approximately 330° and are steeply dipping.</li> </ul>
		Thus, drill orientation should not introduce any bias.
	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Variable gold lode orientations but the dip and angle of holes is designed to test both steep and flatter structures.</li> <li>Drilling orientation is optimal for sampling the gold lodes and testing their controlling structures at each of the Widgiemooltha North projects.</li> </ul>
Sample security	The measures taken to ensure sample security.	The sampling of RC material is overseen by Mincor exploration or Goldfields Technical Services (GTS) employees in the field and the samples are taken into Mincor's custody at the time of drilling, whereupon they are organised and stored at secure company premises before being delivered to the contracted laboratory by Mincor or GTS staff.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• In-house audits of data are undertaken on a periodic basis. QAQC reports are generated by the database consultant.

## **Section 2: Reporting of Exploration Results**

Section 2.10	ection 2. Reporting of Exploration Results				
Criteria	DRC Code explanation	ı	Commentary		
Mineral tenement and land tenure status	including agreemen such as joint venture	e/number, location and ownership ts or material issues with third parties is, partnerships, overriding royalties, historical sites, wilderness or national ntal settings.	All resources lie within mining tenements owned 100% by Mincor Resources NL. Listed below are tenement numbers and expiry dates:  M15/48 – Darlek (13/02/2026)  M15/103 – Flinders (11/12/2026)  M15/105 – Flinders North (21/10/2026)  M15/478 – Flinders South (02/08/2032)  M15/1830 – Hronsky (16/03/2038)  M15/48 – Bass (13/02/2026).  One determined native title claim covers the Bass prospect.		
		enure held at the time of reporting on impediments to obtaining a the area.	Leases are granted and are properly maintained.		
Exploration done by other parties	Acknowledgment ar parties.	nd appraisal of exploration by other	<ul> <li>Exploration and mining activities have been conducted by a number of parties previously:         <ul> <li>Bass was previously explored by WMC and mined by Resolute</li> <li>Hronsky was explored by Black Mountain Gold NL and mined by Amalg</li> <li>Darlek was previously explored by WMC and mined by Resolute.</li> </ul> </li> </ul>		



Criteria	JORC Code explanation	Commentary
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The Widgiemooltha North Gold Project area lies approximately 4km east of the Widgiemooltha Granitic Dome in the southern part of the Archaean Norseman-Wiluna Greenstone Belt.
		Locally the stratigraphic sequence of tuffaceous sediments, mafic and ultramafic rocks has been cut by northwest-trending shear zones and subjected to folding in the northeast quadrant of the tenure. The stratigraphic units are metamorphosed to Upper Greenschist–Lower Amphibolite Faces.
		The project area lies in Archaean shear zone hosted gold deposits associated with mafic-ultramafic volcanics, metasediments and mafic-felsic intrusives. There is evidence of supergene enrichment within some of the project areas.
		<ul> <li>Brief descriptions of styles of mineralisation for each project are outlined as follows (McEwen, 2000b; Mincor, (2016c):</li> <li>West Oliver – Gold mineralisation is associated with</li> </ul>
		steep east dipping, northwest trending quartz veins hosted within an interpreted strike extension of the Darlek-Flinders shear system.
Drillhole information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:         <ul> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	Location of data for evaluation and exploration drilling has been previously reported in media releases dated 7 August 2017, 28 August 2017 and 8 December 2017. Grade control data is not normally reported unless it is extensional in nature.
	<ul> <li>If the exclusion of this information is justified on the bas that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul> <li>Intersections have been reported above 0.5g/t Au, intercepts are length weighted only. Up to 2m of internal dilution in some instances.</li> <li>Cutting of high grades was applied to most resources these ranged from 10g/t Au to 20g/t Au depending on domain.</li> </ul>
	<ul> <li>Where aggregate intercepts incorporate short lengths or high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	Intersections can include short intervals of anomalous
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul><li>Not applicable. Only gold grade is reported.</li><li>No metal equivalent reporting is used or applied.</li></ul>
Relationship between mineralisation widths and intercept	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	• The holes were drilled either at dips ranging from -50° to -60° dip along the strike of each zone in order to provide intersections normal with the mineralisation, thus the intercept length is an accurate measure of the mineralisation thickness.
lengths	<ul> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> </ul>	either from recent infill drilling or from evidence within the pit walls and pit surfaces.
		Mineralisation is generally steep, so downhole intercepts will be greater than true width. There are also shallow to flatter lying supergene enrichment zones.
	<ul> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').</li> </ul>	Not applicable.



Criteria	JORC Code explanation	Commentary
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Maps and sections are included in this and previous media announcements on which this Table 1 is based.</li> <li>Maps summarising the recent drilling intersections have been previously reported in media releases dated 7 August 2017 and 28 August 2017.</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All RC drilling that form the basis of the updated MRE have been reported previously in the media releases dated 7 August 2017, 28 August 2017 and 8 December 2017.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>No other exploration data is considered meaningful and material to this announcement.</li> <li>Mincor has carried out field multi-element analysis using a handheld portable XRF analyser for a full suite of elements.</li> <li>No groundwater was intersected in drilling.</li> <li>Fresh rock is very competent.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Resources at the extremities are usually still open down plunge and along strike.

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

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	<ul> <li>The RC drilling data was uploaded directly from laboratory digital files by database consultant. Mincor geology personal checked results on cross sections and whilst creating composite table in database.</li> <li>The historical drilling data is derived from Resolute and WMC data in database format which Mincor has previously compiled into a regional geological database in Microsoft Access format (Wannaway_v462.mdb). This database and its updated versions have been relied upon as the source of data for the 2017 Mineral Resource estimation work completed by Cube.</li> </ul>
	Data validation procedures used.	<ul> <li>Cube had previously carried out a database validation review of the supplied drilling data, supplied DTMs and 3D model validation checks prior to undertaking the resource estimation update in 2017. Ongoing checks are undertaken by grade control staff, by uploading into Surpac software and visually checking results against expected values and resource shapes.</li> <li>Validation checks on the database included comparing collar points to the topography, maximum hole depths, checks between tables and the collar data. Cube also verified the data using visual inspection of the drillholes</li> </ul>
City		in 3D mining software (Surpac and Leapfrog) to identify inconsistencies of drillhole traces.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken, indicate why this is the case.</li> </ul>	The Competent Person has been involved since the exploration drilling and is still involved on a weekly basis with oversight of the grade control of the mined pits.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Previous interpretations and the successful mining of these interpretations have given reasonable confidence with the current geological interpretation and modelling.
	Nature of the data used and of any assumptions made.	Data is sourced from the historical drill logging and recent RC chip logging, and information from the old open pits and historic shafts, with projections made between drill sections and extending into along strike and down dip extensions based on a drill spacing of 20m x 20m/10m.



Criteria	JORC Code explanation	Commentary
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The results of previous mining and close spaced drilling have provided confirmation of the interpretations used for the MRE. Refinements to interpretations are ongoing but largely support previous interpretations.
	The use of geology in guiding and controlling Mineral Resource estimation.	The interpretation from the historical drill logging and recent RC chip logging, and geological information visible from the old open pits and historic shafts helped guide the interpretation.
	The factors affecting continuity both of grade and geology.	Drillhole grade data was used to develop mineralised outlines. The outlines were modelled to a nominal grade cut-off of approximately 0.5g/t Au cut-off which allowed the model shapes to have optimum continuity.
		The major steeply dipping shear zones hosting mineralisation typically pinch and swell, giving variable thickness of mineralisation. Shallow supergene enrichment zones will affect the block grade estimation where steep and shallow mineralisation intersects.
Dimensions	The extent and variability of the Mineral Resource	West Oliver South:
	expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	West Oliver South is one part of the Flinders-West Oliver area however only this southern portion has been reestimated with an overall strike length of approximately 260m with a maximum width of the mineralisation envelope being 40m.
		The Mineral Resource is modelled to 75–90m vertical depth with the estimate based predominantly on RC drilling collared from surface (one diamond hole)
		A total of 30 mineralised domains were modelled to represent changes in strike and dip of each mineralisation domain modelled. Most of the modelled domains contain a major steeply dipping continuous zone, with discontinuous "extensional vein" structures extending to the west and east from the steeper mineralisation.
Estimation	The nature and appropriateness of the estimation	West Oliver South:
and modelling techniques	technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of	Inverse distance to the power of two (ID2) estimation method was used to estimate gold into the 3D block model for the Flinders West deposit.
	extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Variography was attempted using the 1m composite data from inside the mineralisation wireframes. Poorly structured variograms were generated. Consequently, the drilling is considered to be beyond the limits of the shortrange variability of the gold mineralisation, particularly for the shallow dipping, discrete vein structure modelled. Without robust variograms, geostatistical interpolation methods were not considered appropriate, so ID2 interpolation was chosen with ellipsoids oriented to match mineralisation directions evident in the grade distribution and 3D domaining.
		Samples were composited to 1m within each estimation domain, using fixed length option and a threshold inclusion of samples at sample length 50% of the targeted composite length.
		The influence of extreme grade values was reduced by top-cutting where required. The top-cut levels were determined using a combination of top-cut analysis tools (grade histograms, log probability plots and CVs). Top-cuts were reviewed and applied on a domain basis.
		Parent block size of 2.5m x 5m x 2.5m in the X, Y, Z directions respectively was used, and they were subblocked to 0.625m x 1.25m x 0.625m. This was deemed to be appropriate for block estimation and modelling the selectivity for an open pit operation, and to obtain accurate volume representation of the narrow discrete mineralised domains modelled.
		• Gold was estimated in two passes with the first pass using optimum search distance of 25m as determined through the KNA process and the second run was set at 250m in order to populate all blocks.



Criteria	JORC Code explanation	Commentary			
		Software:			
		Surpac v6.7.1 was used for modelling and estimation.			
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral	• The current MRE used ID2 estimation and compares well to the previous Cube estimate done in 2107.			
	Resource estimate takes appropriate account of such data.	<ul> <li>Previous Resolute estimates exist for Flinders and Darlek but both were done at higher cut-offs in a lower gold price environment.</li> </ul>			
		<ul> <li>No historical production records from the old open pits were available to use, such as grade control data, to assist with modelling and continuity of grade. Production data in the form of total tonnage mined and grade was available for Darlek and Bass.</li> </ul>			
	The assumptions made regarding recovery of by- products.	No by-product recoveries were considered.			
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Estimation of deleterious elements was not completed for the Mineral Resource. Only gold assays were extracted from database assay tables.			
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	<ul> <li>For all project areas and mineralisation domains, the search radius selected was based on lode geometry and drillhole spacing.</li> </ul>			
	Any assumptions behind modelling of selective mining units.	The block model definition parameters included a primary block size and sub-blocking and are deemed appropriate for the mineralisation and to provide adequate volume definition where there are narrow or complex zones modelled. These dimensions are suitable for block estimation and modelling the selectivity for an open pit operation.			
	Any assumptions about correlation between variables.	No correlation analysis between other elements and Au was conducted.			
	Description of how the geological interpretation was used to control the resource estimates.	The mineralised domains acted as a hard boundary to control the MRE. The domaining was based on knowledge of the steeply dipping shears known to host gold mineralisation from drill logging and visual evidence in the old pits. The flatter structures are also known from pit mapping and examination of historical stoping areas.			
	Discussion of basis for using or not using grade cutting or capping.	Composite gold grade distributions within the mineralisation domains were assessed to determine if a high-grade cutting should be applied.			
		• The top-cut was determined using a combination of top- cut analysis tools (grade histograms, log probability (LN) plots and effects on the CV and metal at risk analysis.			
		<ul> <li>In most cases, only a very small number of outlier values are included in the estimation domains that required top- cut values to be applied.</li> </ul>			
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	<ul> <li>Block model validation was conducted by the following means:</li> <li>Visual inspection of block model estimation in relation</li> </ul>			
		to raw drill data on a section-by-section basis.  o Volumetric comparison of the wireframe/solid volume to that of the block model volume for each domain.			
		<ul> <li>A global statistical comparison of input and block grades, and local composite grade (by northing and RL) relationship plots (swath plots), to the block model estimated grade for each domain.</li> </ul>			
		o Comparison of the cut grade drillhole composites with the block model grades for each lode domain in 3D.			
		<ul> <li>Limited open pit mining information was available as at 30 June 2018, no milling had as yet occurred. No reconciliation analysis was able to be completed.</li> </ul>			
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnages are estimated on a dry tonnes basis.     Moisture was not considered in the density assignment.			



Criteria	JORC Code explanation	Commentary
Cut-off	The basis of the adopted cut-off grade(s) or quality	Cut-off grade for reporting is 0.5g/t Au.
parameters	parameters applied.	<ul> <li>As resources occur at surface the model was constructed with a view towards selective open pit mining. Thus, a 0.5g/t Au lower cut-off was deemed appropriate.</li> </ul>
Mining factors or assumptions	minimum mining dimensions and internal (or, if	<ul> <li>Open pit mining has previously taken place at Bass, Hronsky and Darlek.</li> <li>Any future mining method is likely to be selective open pit mining.</li> </ul>
Metallurgical factors or assumptions	metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding	<ul> <li>Bass and Darlek ore was milled by Resolute at Chalice and the Hronsky ore previously milled by Amalg.</li> <li>Mincor have conducted numerous tests assuming standard carbon-in-leach treatment.</li> <li>Each prospect has two master composites representing oxide and mixed fresh/transitional material, except for Darlek where mining from the current pit floor has already removed oxide material.</li> <li>Recoveries are in line with typical goldfields orebodies.</li> </ul>
Environmental factors or assumptions	residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of	<ul> <li>The deposits are within already disturbed land by previous mining.</li> <li>The location and size of these deposits would lend themselves to small open pits with treatment at a third party mill elsewhere in the district.</li> <li>Only environmental issues would be waste rock storage and water disposal from pits.</li> </ul>
Bulk density	for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.  • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit  • Discuss assumptions for bulk density estimates used in	<ul> <li>There is no density measurement for the RC samples, however, recent diamond drillholes completed by Mincor were measured for specific gravity, averages within oxidation boundaries were used globally within each prospect.</li> <li>Bulk density values were stored within the assay table of Mincor's Microsoft Access database "Wannaway_v462.mdb". A total of 380 samples had bulk density values are recorded in the database.</li> <li>Previous records had noted that density determinations were carried out using the immersion method on individual core samples from seven diamond drillholes (MDD291 to MDD297) within the Widgiemooltha North Project area.</li> <li>For each MRE, the samples were classified according to their weathering status using the DTM surfaces for the oxidation surfaces (Base of Oxidation, and Top of Fresh Rock). The average density values were calculated per weathering category and tabulated as follows:</li> <li>Material type Oxide state Assigned density All samples Transitional 2.38</li> </ul>
Classification	into varying confidence categories.	<ul> <li>All samples Fresh 2.9</li> <li>Blocks have been classified as Indicated or Inferred essentially based on data spacing and using a combination of search volume and number of data used for the estimation.</li> <li>Indicated Mineral Resources are defined nominally on 25m x 20m spaced drilling or less.</li> <li>Inferred Mineral Resources are defined by data density</li> </ul>



Criteria	JORC Code explanation	Commentary
		greater than 25m x 20m spaced drilling and confidence that the continuity of geology and mineralisation can be extended along strike and at depth.  • Classification limits may vary where grade and geology
		are extremely continuous even though drill spacing extends passed the nominal limits specified.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The resource classifications are based on the quality of information for the geological domaining, as well as the drill spacing and geostatistical measures to provide confidence in the tonnage and grade estimates.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The MRE appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	A previous review of the MREs for the Widgiemooltha North projects was carried out by Cube in 2016 and Cube performed to estimates in November 2017.
		<ul> <li>For the current estimates peer reviews of work carried out by Mincor staff. An external peer review of the MREs was conducted prior to completion of the Enhanced Feasibility Study in March 2018.</li> </ul>
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	The Bass, Hronsky and Flinders-West Oliver Mineral Resources are made up predominantly of narrow, continuous mineralised gold zone. The Darlek Resource is made up of a series of shallow, discrete, sub-parallel gold-bearing shears.
		<ul> <li>The current modelled Mineral Resource is a reasonable representation of the global contained metal.</li> <li>The resource risk is considered to be low to moderate as the density of drilling support the classification of over half of the Mineral Resource to be classified as Indicated.</li> </ul>
		<ul> <li>In addition, previous open pit mining has verified the reproducibility of the original RC mineralised drill intersections for Bass, Hronsky and Darlek.</li> </ul>
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The MREs each constitute a global resource estimate.
	These statements of relative accuracy and confidence of	Bass:
	the estimate should be compared with production data, where available.	Production vs the depleted resource model are in line with expectations although as the material is yet to be milled a true reconciliation is not yet available. The presence of the dolerite dyke has now been accounted for and the magnetics do not indicate any other potential dykes.
		Flinders:
		No previous open pit mining. Extensive shallow historical underground workings occur along most of the strike length from West Oliver to the main Flinders mineralised zone. Flinders depletion and grade control stockpile is slightly lower than resource model predicted due to some thinner lodes than predicted.
		West Oliver South:
		No mining as yet undertaken but top half of designed open pit was grade control drilled and that information incorporated into the Resource model.



# Section 4: Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The resource block models and dates used as the basis for the Ore Reserve estimation are as follows:         <ul> <li>Dlk_bm_20170816.mdl (Darlek)</li> <li>Fwo_bm_20171027.mdl (Flinders-West Oliver North)</li> <li>Fwo_bm_20180306.mdl (West Oliver South)</li> <li>Hrn_bm_20171024.mdl (Hronsky)</li> <li>Bass_rotated_bm2017102 (Bass)</li> <li>Where applicable, these resource models have been depleted by material mined to June 2018</li> <li>30 June 2018 ore stockpile surveys.</li> </ul> </li> <li>Mineral Resources are inclusive of Ore Reserves.</li> <li>The Competent Person visited the site in May 2016.</li> <li>Additional site visits would not materially affect the determination of the Reserve.</li> </ul>
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<ul> <li>The study is considered to be to a Feasibility Study level of confidence (i.e. +/- 15% accuracy).</li> <li>The Ore Reserve is a combination of the March 2018 feasibility study (depleted by material mined to 30 June 2018), the current Flinders and Bass ore stockpiles and an updated resource model for West Oliver South.</li> <li>Ore Reserves are classified as Proved and Probable.</li> </ul>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>Cut-off grades were determined specific to material weathering (oxide, transitional, fresh) and by pit area.</li> <li>Inputs to cut-off grade calculations were:         <ul> <li>Contractor related costs covering waste/ore differentials, grade control, ore haulage and toll milling, based upon formal Request for Quotation (RFQ) packages.</li> <li>Owner related, miscellaneous and on-costs costs based on study cost modelling which included known Mincor cost areas.</li> <li>Metallurgical recoveries based on a detailed metallurgical test work program.</li> <li>Application of royalties for both State and third party.</li> <li>A gold price of A\$1,600/oz.</li> </ul> </li> </ul>
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Based on the mineralogy depth and configuration, all deposits were assessed as being wholly amenable to mining by conventional open pit methods.</li> <li>Open pit mining is based on use of 90-100t fixed chassis trucks or 40t six-wheel articulated trucks, depending on the ore configuration or depth.</li> <li>Geotechnical pit slope parameters were based on a detailed geotechnical assessment (Green Geotechnical), relying on historical pits, diamond core, televiewer data, mapping and structural/stability analysis.</li> <li>Grade control RC drilling and reinterpretation will be required for the Flinders, West Oliver (currently partially grade control delineated), Hronsky and Darlek deposits ahead of mining to further detail the Reserve and the mine design. Bass has either been mined and stockpiled awaiting haulage to the processing plant or grade controlled delineated and awaiting mining.</li> <li>Mine designs were generated based upon the results of Whittle pit optimisation analyses.</li> <li>Selected pit shells for each deposit ranged from A\$1,300/oz to A\$1,700/oz.</li> <li>The optimisation and mine design process used input costs and revenue parameters as listed in the above "Cut-off parameters" section.</li> <li>Mining dilution was applied as a 20% factor for all pits</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>except for the Main Flinders pit and West Oliver South where favourable orebody geometries results in the use of a factor of 10%. These assigned dilution parameters are based upon an in-house dilution evaluation study using expanded hangingwall and footwall dilution skins.</li> <li>Mining recovery of 95%.</li> <li>A minimum working mining width of 10m at the base of pits.</li> <li>Mining is via a range of excavator/truck matches to best optimise ore: <ul> <li>100t ex/90t fixed chassis truck</li> <li>90t ex to 40t articulated truck</li> <li>45t ex to 40t articulated truck.</li> </ul> </li> <li>The Ore Reserve estimation is exclusive of all Inferred material.</li> <li>The project still requires some road establishment however access to the highway has been established.</li> <li>On-site diesel generated power has been established.</li> </ul>
Metallurgical factors or assumptions	tors or appropriateness of that process to the style of	<ul> <li>Processing will take place at a third party owned, toll treatment facility using conventional CIL methods.</li> <li>This is considered as a well-tested existing technology.</li> <li>Ore metallurgical test work outcomes were generated during a program managed by experienced consultant metallurgists.</li> <li>Test work samples selected from each prospect, with one composite of saprolite and one composite of saprock/fresh material. Darlek was limited to one composite from the base of the current open pit.</li> <li>No deleterious elements or outcomes (including preg-</li> </ul>
		<ul> <li>robbing) were noted.</li> <li>No bulk sample test work has been carried out.</li> <li>Three of the existing orebodies have previously been treated – either t the Chalice mill or Burbanks mill. Historical data in this area however has NOT been available.</li> </ul>
Environment al	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	<ul> <li>Environmental approvals are in place for the mining of the Widgiemooltha Gold Project from all necessary government authorities.</li> <li>A waste rock classification has been completed, based on samples taken from each deposit. In general, most of the waste rock is classified as benign, however small amounts of potential acid generating material were noted for a particular zone within the Hronsky waste. This will be managed by encapsulation with non-acid forming (NAF) waste.</li> <li>The West Oliver pit design will encroach on to the Widgiemooltha creek. A diversion has been designed to manage this aspect.</li> <li>Acoustic modelling has been completed in relation to the nearby Widgiemooltha residents (within 1km), with resultant noise controls implemented.</li> <li>Ongoing noise and dust monitoring is being carried out during operations.</li> <li>A detailed surface water management as well as ground water modelling evaluation have been completed. Surface storm water will be managed by establishing a number of engineered flood bunds and sumps. Removal of groundwater from pits will be managed by diesel pumps.</li> </ul>
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities),	<ul> <li>Dust suppression will be achieved by extraction of available project pit ground water or raw water from designated nearby completed pits.</li> <li>No tailings will be stored on-site.</li> <li>The Coolgardie-Esperance Highway is within a few kilometres to the east.</li> </ul>



Criteria	JORC Code explanation	Commentary
	labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>(including accommodation, fuel and food) for persons travelling on the Coolgardie-Esperance Highway.</li> <li>Potable water is trucked to site and stored in a holding tank.</li> <li>Power requirements for offices and workshop are via diesel genset.</li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and coproducts.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>Additional capital costs are limited to: <ul> <li>Establishment of additional roads</li> <li>Creek diversion</li> <li>Coolgardie-Esperance Highway apron.</li> </ul> </li> <li>Direct mining costs are based on firm contract rates</li> <li>Site mine management costs based on a firm contract rate for a turn key mine management group.</li> <li>Ore haulage and processing based on a firm agreement for a toll treatment arrangement.</li> <li>RC grade control drilling based on a firm executable contract.</li> <li>Owner offsite costs, as well as other general operating costs have been estimated as part of the Feasibility Study.</li> <li>All treatment and refining charges are incorporated within the toll treatment charge. No deleterious ore processing conditions are expected to cause penalties.</li> <li>Gold price is based upon a flat A\$1,600/oz.</li> <li>There is a 2.5% state royalty and a private royalty payable. The private royalty is partially applied to Hronsky and wholly to all other deposits.</li> </ul>
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	Gold price is based on a flat A\$1,600/oz.
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul> <li>Gold dore will be produced for sale from the toll treatment plant.</li> <li>Market window is likely to be unchanged.</li> <li>The gold price is likely to go up, go down or remain unchanged.</li> </ul>
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>Key financial assumptions:         <ul> <li>Gold price of A\$1,600/oz</li> <li>Accumulated tax loss of A\$79.04M to end of 2017 financial year</li> <li>Minimum ore toll treatment capacity of 40,000t/month.</li> </ul> </li> <li>An economic model was used to test robustness of the targeted Ore Reserve. For this, financial return was measured in net cashflow, NPV and IRR.</li> <li>The economic model used a discount rate of 8% and a base gold price of A\$1,600. Given the short project life, no inflation factors were used.</li> <li>The economic model used the costs and revenue factors as previously discussed.</li> <li>Sensitivity modelling was carried out on key operating cost and revenue driver areas to ± variation ranges to test the robustness of the project. Key outcomes of this exercise were:         <ul> <li>The project is most sensitive to gold price/contained gold</li> <li>The project is next most sensitive to dilution assumption</li> <li>The third most sensitive group are operating costs.</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
		In addition to the above, scenario modelling was carried out to test combinations of sensitivity factors, including recovered ore and dilution. This modelling confirmed the robustness of the project under reasonable scenario test values.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	<ul> <li>Mining licences are in place with the WA State Government regulators.</li> <li>Involvement of local Widgiemooltha townspeople in operational and mine closure plans.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul> <li>All tenements are granted mining licences.</li> <li>Approval for land clearance has been obtained.</li> <li>Approved Mining Proposal document.</li> <li>Approved Clearing Permit.</li> <li>Approved Project Management Plan (PMP).</li> <li>Approved water licences (5C and 26D).</li> </ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>Proved Reserves are based upon 30 June 2018 ore stockpile surveys.</li> <li>Probable Reserves are based on (i.e. are a subset of) Indicated Resources (depleted by mining to 30 June 2018) which have been tested for financial viability.</li> <li>The Competent Person is satisfied with the classification of the Reserves in view of the deposit.</li> <li>Less than 6% of the Ore Reserve are derived from Measured Mineral Resources, notably ore stockpiles.</li> </ul>
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	<ul> <li>An independent audit of the Feasibility Study and the Ore Reserve estimate was completed by AMC Consultants Pty Ltd (Independent Technical Evaluation – January 2018).</li> <li>No further audits have been carried out.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>Based on the parameters and factors discussed in this Section 4, the methods used to determine an Ore Reserve for the Widgiemooltha Project are deemed appropriate for the project type and scale. Other than gold price, the Ore Reserve is most sensitive to the dilution and recovery parameters, both with have been stress tested as a risk scenario. Risks in this area would particularly apply to the West Oliver-Flinders interpretations given some geometric complexity associated with this deposit region.</li> <li>The Ore Reserve estimate is global.</li> <li>The Bass, Hronsky and to a lesser extent Darlek orebodies are less complex and hence have less risk attached to them.</li> <li>As support to the Ore Reserve process, historical grades achieved from Hronsky, Darlek and Bass were assessed. This historical information provided additional confidence to the assigned reserve grades applied for these deposits and others.</li> </ul>