

## GENESIS TO EVALUATE NEW OPEN PIT AND UNDERGROUND MINING OPPORTUNITIES AT ULYSSES AFTER DELIVERING 36% RESOURCE INCREASE

*Resource inventory grows to over 200,000oz following successful drilling and open pit mining campaigns completed over the past year*

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### Key Points:

- **Updated Measured, Indicated and Inferred Mineral Resource estimate** completed for the 100%-owned **Ulysses Gold Project** in Western Australia, totalling:
  - **2.8 million tonnes at 2.3g/t Au for 206,400 contained ounces of gold**
- This represents a **32% increase in tonnage** and **36% increase in contained ounces** compared with the previous (February 2016) Resource of 2.13Mt at 2.2g/t for 151,500oz.
- The most **recent limited mining campaign** at the Ulysses West Open Pit has now been completed, with a total of **7,500 tonnes of high-grade material** (~5g/t Au) successfully extracted. The ore has been hauled to the Paddington mill for processing. Payments for the more recent campaign expected in May and June.
- Genesis is now evaluating the potential to undertake a **further cut-back at the Ulysses West Open Pit to extract ~10,000 tonnes of high-grade material** commencing in June. A decision will be made on this by the end of May.
- The Company is also now **evaluating the potential for a small-scale underground mining operation** to extract some of the deeper high-grade ore below the open pits.
- Any underground mining operation is likely to be undertaken via a **mining partnership with an experienced underground contractor** in order to minimise risk and capital requirements for Genesis. If a suitable development pathway is identified, a Feasibility Study will be undertaken in the second half of 2017.

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Genesis Minerals Limited (ASX: GMD) is pleased to advise that it is evaluating additional opportunities to unlock the value of its 100%-owned **Ulysses Gold Project** in WA via low-cost toll-treatment mining campaigns after announcing a substantial increase in the project's Mineral Resource inventory.

The updated Measured, Indicated and Inferred Mineral Resource now totals 2.8 million tonnes at an average grade of 2.3g/t for 206,400 ounces (Refer to Table 1 for full details), which represents a 32% increase in resource tonnes and 36% increase in contained ounces compared with the February 2016 Mineral Resource. The resource remains open and untested at depth.

The updated Mineral Resource incorporates the results of drilling completed over the past year. It also follows the success of two limited open pit mining campaigns at Ulysses – one completed in late 2016 and a subsequent limited mining campaign to extract high-grade material at the base of the pit which was completed over the weekend.

These campaigns have demonstrated that Genesis can generate strong cash returns from this style of operation, utilising the proceeds to strengthen its balance sheet, to fund exploration and organic

growth at both its Ulysses Project near Leonora and its Viking Project near Norseman and to assess new project opportunities.

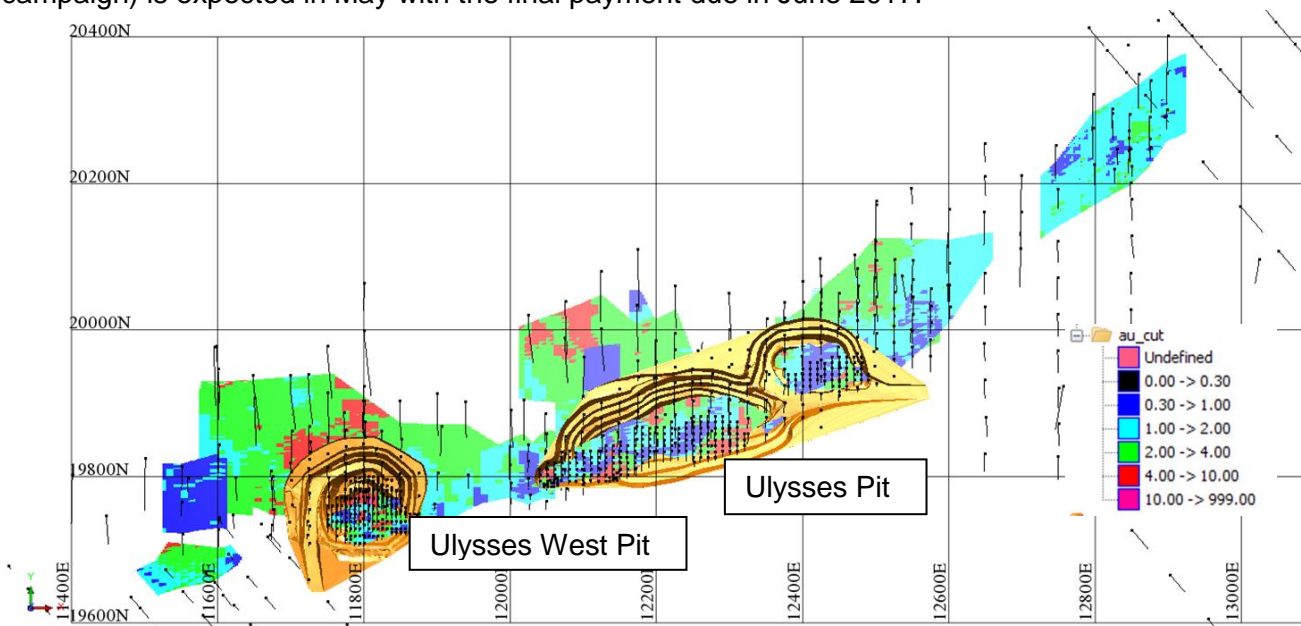
Further open pit mining campaigns will now be evaluated and considered, as well as potential future underground mining opportunities at Ulysses. Any potential future underground mining operation is likely to be undertaken via a mining partnership with an experienced underground contractor in order to minimise risk and capital requirements for Genesis. If a suitable development pathway is identified, a Feasibility Study will be undertaken in the second half of 2017.

**Mining Update**

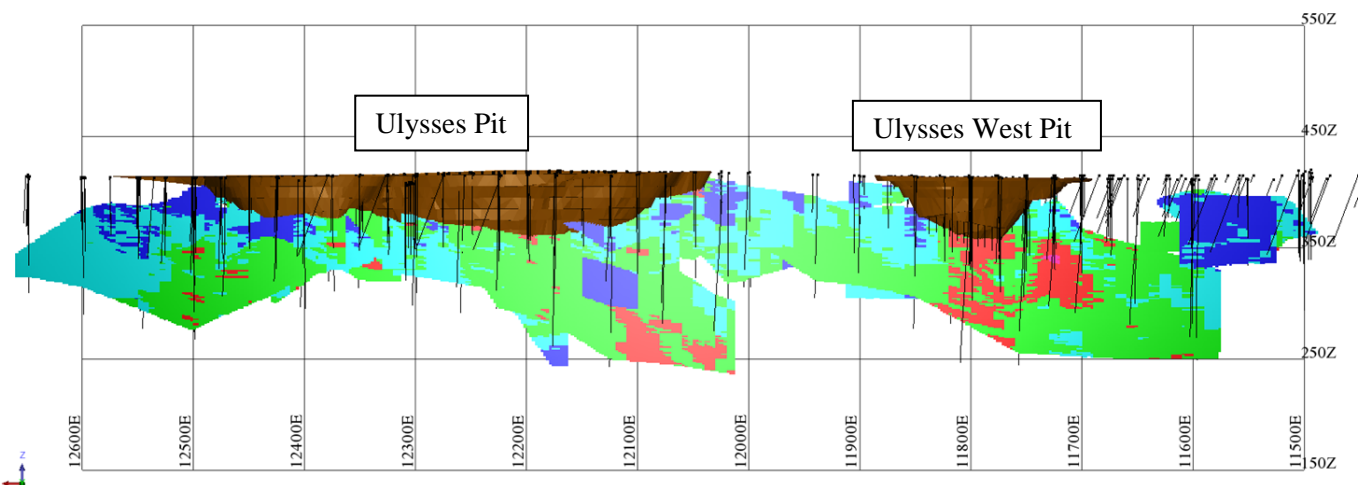
A limited mining campaign commenced in late March at the Ulysses West Open Pit to extract additional high-grade material (~5g/t Au) remaining at the base of the open pit from last year’s mining activities.

This latest mining campaign was completed over the weekend, with a total of 7,500 tonnes extracted from the base of the pit. Ore was mined to the 355mRL (~60m below surface).

All ore from this campaign has been dispatched to the Paddington mill for processing under the existing toll-milling agreement. The first payment for the UW6 batch (ore from current mining campaign) is expected in May with the final payment due in June 2017.



**Figure 1: Plan view of Ulysses Mineral Resource in local grid.**



**Figure 2: Long section looking south (mineralisation dipping north)**

## **Mineral Resource Statement Update**

The updated Mineral Resource for the Ulysses deposit has been independently estimated by Payne Geological Services Pty Ltd (“PayneGeo”). The update was required to incorporate the results of recent drilling completed by Genesis and to account for the recently completed mining at the deposit.

A summary of the 2017 Ulysses Mineral Resource is shown in Table 1 below:

**Table 1: Ulysses Gold Deposit – May 2017 Mineral Resource (0.75g/t Cut-off)**

Type	Measured		Indicated		Inferred		Total		
	Tonnes t	Au Cut g/t	Tonnes t	Au Cut g/t	Tonnes t	Au Cut g/t	Tonnes t	Au Cut g/t	Cut Ounces
Oxide	7,000	2.0	176,000	1.7	79,000	1.5	<b>262,000</b>	<b>1.6</b>	<b>13,800</b>
Transition	8,000	2.6	392,000	1.8	172,000	1.7	<b>573,000</b>	<b>1.8</b>	<b>32,900</b>
Fresh	10,000	5.3	1,285,000	2.7	674,000	2.2	<b>1,968,000</b>	<b>2.5</b>	<b>159,700</b>
<b>Total</b>	<b>26,000</b>	<b>3.4</b>	<b>1,853,000</b>	<b>2.4</b>	<b>924,000</b>	<b>2.0</b>	<b>2,803,000</b>	<b>2.3</b>	<b>206,400</b>

**NB. Rounding errors may occur.**

The Ulysses Project area has been held by a number of operators and has been drilled in several phases since initial discovery in 1993. Drilling has been focussed on the Ulysses deposit, with more regional exploration also completed.

Open pit mining was carried out in 2002 and is reported to have mined 266,000t at 2.9g/t for 24,985 ounces. Further open pit mining was carried out by Genesis in 2016 and 2017.

### *Geology and Geological Interpretation*

The Ulysses deposit lies within the Archean aged Norseman to Wiluna greenstone belt. Host rocks comprise a sequence of dolerite and basalt units. Gold mineralisation is associated with a strongly altered, distinctive assemblage of biotite-sericite-pyrite ± carbonate alteration and quartz veining located within a regionally extensive WNW trending shear zone. Depth of complete oxidation is approximately 30m to 40m with depth to fresh rock approximately 45 to 60m.

Discrete zones of mineralisation are typically 1-8m in thickness and dip at 30-50° to the north. Shoot development within the shear zone has resulted in local thickening and increased grade within steep NW plunging shoots. The deposit has been reported to a maximum depth of 176m below surface.

### *Drilling Techniques*

The Ulysses drill database includes records for 1,810 drill holes for a total of 90,983m of drilling. The Mineral Resource is defined by 494 RC and 9 diamond drill holes for a total of 27,545m, the majority of which were angled at -60° to grid south. The majority of the deposit has been drilled at 25m by 25m spacings, with local in-fill to 12.5m spacings. Grade control drilling at Ulysses West has been carried out at 6.25m by 10m spacings.

The majority of resource drilling was completed by previous operators between 1993 and 2002. Genesis drilling has been concentrated on infill drilling in the Ulysses West pit area and on strike and depth extensions to the defined mineralisation.

Drill-hole collars were surveyed in MGA coordinates using RTK GPS and were transformed to local grid for interpretation and modelling. Down hole surveys were recorded for the majority of holes using electronic multi-shot survey instruments.

### *Sampling and Sub-sampling Techniques*

For RC drilling, a face-sampling hammer was used with samples collected at 1m intervals from mineralised zones with composite sampling of 4m or 5m in un-mineralised rocks. Samples were

collected through rig-mounted or free standing riffle splitters. Samples were reported to have been kept dry throughout the mineralised zones and visually determined recoveries were good.

Diamond core was NQ size and sampled to geological intervals from half core cut with a diamond saw.

#### *Sample Analysis Method*

Samples from all resource drilling were assayed at contract laboratories using a fire assay technique. Quality control data was collected from Genesis drilling and included the use of blanks, certified standards and field duplicates. Detailed review of the QAQC data determined that the results were satisfactory and that the drilling database was suitable for resource estimation. The Genesis infill drilling supports the previous drill-hole data suggesting that there is no problem with the spatial location and tenor of mineralisation defined in the historic drilling.

#### *Estimation Methodology*

The deposit was estimated using ordinary kriging ("OK") grade interpolation of 1m composited data within wireframes prepared using nominal 0.3g/t Au envelopes. Interpolation parameters were based on geostatistical analysis and considered the geometry of the individual lodes. A first pass search of 40m with a minimum of 10 samples and a maximum of 24 samples was used which resulted in 53% of the blocks being estimated. Search ranges were increased to fill the remaining blocks.

High grade cuts were applied to different lodes and ranged from 10g/t to 30g/t.

A Surpac block model was used for the estimate with a block size of 10m EW by 5m NS by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m. Bulk density values used in the resource estimate were based on determinations from drill core. Values applied to the model were 2.7t/m<sup>3</sup> for duricrust, 2.1t/m<sup>3</sup> for Oxide, 2.5t/m<sup>3</sup> for Transition and 2.8t/m<sup>3</sup> for Primary mineralisation and 2.9t/m<sup>3</sup> for Primary waste rock.

#### *Mineral Resource Classification*

Mineral Resource classification was considered on the basis of drill hole spacing and continuity of mineralisation. The portion of the deposit defined by Genesis grade control drilling at 6.25m by 10m spacing and displaying excellent continuity has been classified as Measured Mineral Resource.

Within much of the deposit, drill hole spacing is at 25m by 25m with some infill to 12.5m. These areas showed reasonable continuity of mineralisation and predictable geometry and were classified as Indicated Mineral Resource. Indicated Mineral Resource was also assigned to areas drilled at a spacing of up to 40m where they were extensions of well drilled areas and where the geometry and grade distribution were consistent.

The peripheral areas of a number of the lodes were sparsely drilled and variably mineralised and were classified as Inferred Mineral Resource which was extrapolated to a distance of up to 40m past drill hole intersections.

#### *Cut-off Grades*

The shallow, sub-cropping nature of the deposit and previous mining studies suggests that good potential remains for open pit mining. As such, the Mineral Resource for each deposit has been reported at a 0.75g/t Au lower cut-off to reflect potential exploitation by open pit mining.

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## Metallurgy

Metallurgical test work has been carried out for each phase of mining at Ulysses confirming that the ore is amenable to conventional cyanide leaching. This has been confirmed by +92% gold recoveries from the recent toll treatment campaigns by Genesis.

## Modifying Factors

No modifying factors were applied to the reported Mineral resources. Parameters reflecting mining dilution, ore loss and metallurgical recoveries will be considered during the planned mining evaluation of the project.

The reported Mineral Resource has been depleted to account for existing open pit mining.

## **Management Comment and Next Steps**

Genesis Managing Director Michael Fowler said the resource upgrade was a positive outcome for the Company, demonstrating the potential to continue to expand the resource while also highlighting the excellent potential for future open pit and possibly underground mining campaigns.

“Achieving a 36 per cent increase in contained gold, net of depletion from two successful open pit mining campaigns, is a very good result which confirms that our approach of unlocking value from this project using low-cost, toll treatment methods is viable,” he said.

“We have demonstrated our ability to manage these programs successfully in conjunction with our mining alliance partner SMS Mining Pty Ltd, and to generate significant cash which we can use to fund organic growth opportunities.

“The next step for the Company is to consider an immediate cut-back at the Ulysses West Open Pit to extract further high grade material at the bottom of the pit. We will make a decision on this opportunity by the end of May and, if we decide to proceed, we could be back mining again by mid-June in a 4 - 6 week campaign which could generate further significant cash returns.

“In the meantime, we have also commenced an evaluation of the potential for a future small-scale underground mining operation at Ulysses to extract some of the deeper, high-grade material.

“If we can identify a suitable pathway to progress this opportunity, we would envisage that it would be undertaken using a similar partnership arrangement with an experienced underground mining contractor. We will provide further information on this opportunity in due course,” he said. “We are also continuing to evaluate the significant exploration upside at Ulysses and we will provide further updates on current and upcoming exploration programs in the near future.”

**ENDS**

For further information, visit: [www.genesisminerals.com.au](http://www.genesisminerals.com.au) or please contact

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## COMPETENT PERSONS' STATEMENTS

*The information in this report that relates to Exploration Results is based on information compiled by Mr. Michael Fowler who is a full-time employee of the Company, a shareholder of Genesis Minerals Limited and is a member of the Australasian Institute of Mining and Metallurgy. Mr. Fowler has sufficient experience which 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'. Mr. Fowler consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The Information in this report that relates to Mineral Resources is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services and is a shareholder of Genesis Minerals Limited. Mr Payne 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". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## Appendix 1: Forward Looking and Cautionary Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

This announcement has been prepared in compliance with the JORC Code (2012) and the current ASX Listing Rules.



## JORC Table 1 Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes at the deposit include 9 diamond holes (DD) and 561 reverse circulation holes and regional RAB (Rotary Air Blast) and air-core (AC) drilling;</li> <li>• The majority of RC and DD drilling was completed in 2000 and 2001 by Sons of Gwalia Limited (SGW);</li> <li>• In the deposit area, holes were generally angled to optimally intersect the mineralised zones;</li> <li>• RC samples were collected in one metre intervals from a rig mounted cyclone and riffle splitter;</li> <li>• For RAB drilling, chips from each 1m interval were dumped on the ground and samples scooped from the chip piles;</li> <li>• For AC, RAB and some RC drilling, samples were composited into 2m or 3m intervals for assay with anomalous intervals resubmitted at 1m intervals. The majority of RC holes were sampled and assayed at 1m intervals;</li> <li>• DD core was cut using a diamond saw and half core samples submitted for analysis.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul style="list-style-type: none"> <li>• RC drilling used a face sampling bit;</li> <li>• Diamond drilling was carried out with HQ and NQ sized equipment with standard tube;</li> <li>• Conventional equipment was used for RAB and AC drilling.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <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 due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>• Recoveries from historical drilling are not documented but for the SGW holes, drilling conditions, recoveries and sample size were reported to be good;</li> <li>• Diamond core recovery was recorded in the drill logs and was good;</li> <li>• There appears to be no relationship between sample recovery and sample grades.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• All diamond drill holes were logged for recovery, RQD, geology and structure.</li> <li>• RC, AC and RAB drilling was logged for various geological attributes.</li> <li>• All drill holes were logged in full.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>• RC samples were collected from a rig mounted cyclone and splitter in one metre intervals and split using a multi stage riffle splitter;</li> <li>• For RC and DD drill programs, samples were assayed at the Amdel laboratory in Historical</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>For RC and DD drill programs, samples were assayed at the Amdel laboratory in Kalgoorlie. Samples were dried and a 1kg split was pulverized to 80% passing 75 microns. No QAQC reports have been located for the drilling data;</li> <li>All Genesis samples were analysed at Intertek Genalysis in Perth following preparation in Kalgoorlie. Samples were dried at approximately 120°C with the sample then being presented to a robotic circuit. In the robotic circuit, a modified and automated Boyd crusher crushes the samples to -2mm. The resulting material is then passed to a series of modified LM5 pulverisers and ground to a nominal 85% passing of 75µm. The milled pulps were weighed out (50g) and underwent analysis by fire assay (method FA50/OE04).</li> <li>Sample sizes are considered appropriate to correctly represent the gold mineralisation based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Au.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>For SGW RC and DD drilling, analysis was by fire assay and atomic absorption spectrometry (AAS) finish at the Amdel laboratory in Kalgoorlie;</li> <li>The analytical technique used approaches total dissolution of gold in most circumstances.</li> <li>No QAQC reports have been located, however overall results have been confirmed globally by the gold recovered from the open pit mining operation;</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent verification of significant intersections has been carried out.</li> <li>A number of early holes were twinned by SGW and resulted in the early holes being excluded from the estimate;</li> <li>Primary data documentation has not been provided to GMD</li> <li>Data is well organized and securely stored in a relational database;</li> <li>Assay values that were below detection limit were adjusted to equal half of the detection limit value.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole collar coordinates used MGA Zone 51 datum with transforms to a local grid.</li> <li>Drill hole collars have been accurately surveyed either by licenced surveyors or using differential GPS;</li> <li>Topographic control is from detailed topographic survey in the vicinity of the resource and from drill hole collar surveys elsewhere.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological</li> </ul>	<ul style="list-style-type: none"> <li>For RAB and AC drilling, the drill hole spacing is variable and up to 400m by 100m;</li> <li>For RC and DD drilling, the hole spacing is largely 25m by 25m, and 100m by 30m in deeper or poorly mineralised parts of the</li> </ul>



Criteria	JORC Code Explanation	Commentary
	<p><i>and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<p>deposit;</p> <ul style="list-style-type: none"> <li>• During 2016/17 grade control drilling was undertaken at 6.5 drill spacing over a strike length of 140m in the western portion of the deposit;</li> <li>• The drilling has demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource, and the classifications applied under the 2012 JORC Code.</li> <li>• Preliminary samples in the Mineral Resource were based largely on 1m samples without compositing.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Holes were generally angled to grid south or to optimize the intersection angle with the interpreted structures.</li> <li>• No orientation based sampling bias has been identified in the data.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sample security measures were not recorded.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No documentation is available for audits and reviews.</li> <li>• The work was carried out by reputable companies using industry standard methods.</li> </ul>

## JORC Table 1 Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit is located within Mining Lease M40/166 which is owned by Ulysses Mining Pty Ltd</li> <li>The Mining Lease was granted for a term of 21 years and expires 28 January 2022</li> <li>The tenement is in good standing.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement was previously held in a joint venture between Sons of Gwalia Limited ("SWG") and Dalrymple Resources NL. The majority of drilling was completed by SWG between 1999 and 2001.</li> <li>The project was acquired by St Barbara Limited ("SMB") in 2004. SBM work was limited to resource modelling and geological review.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Ulysses is a orogenic, lode-style deposit hosted within mafic rocks of the Norseman-Wiluna greenstone belt</li> <li>Gold mineralisation occurs within a strong zone of shearing and biotite-sericite-pyrite alteration typically 5-10m true width.</li> <li>The shear zone strikes east-west and dips 30-40° to the north.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length</li> </ul> </li> <li>If the exclusion of this information is justified on the basis 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>	<ul style="list-style-type: none"> <li>Appropriate tabulations for drill results have previously been released in Genesis ASX releases - December 21, 2016, October 28, 2015 and June 9, 2015 May 9, 2016, July 18, 2016 and November 9, 2016.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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> <li>Where aggregate intercepts incorporate short lengths of 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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results are being released.</li> </ul>
<b>Relationship between mineralisation</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with</li> </ul>	<ul style="list-style-type: none"> <li>Drill holes are angled to local grid south which is approximately perpendicular to the orientation of the mineralised trend.</li> </ul>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>widths and intercept lengths</b>	<p>respect to the drill hole angle is known, its nature should be reported.</p> <ul style="list-style-type: none"> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results are being released.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results are being released.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Regional exploration programs have been conducted including RAB drilling and geochemical sampling. The results have not been used in the Mineral Resource estimate.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Further work at the deposit will be guided by the results of pit optimisation and underground analysis of the Mineral Resource.</li> <li>Along strike and down dip lode extensions are likely targets for further exploration.</li> <li>Regional exploration results will be assessed to identify other targets.</li> </ul>

### JORC Table 1 Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Data was captured electronically to prevent transcription errors.</li> <li>Validation included comparison of gold results to logged geology to verify mineralised intervals.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Site visits were undertaken by the Competent Person in 2015 and 2016 to verify the extent of mining operations, locate drill collars from previous drilling, review grade control drilling and mining operations and to confirm that no obvious impediments to future project exploration or development were present.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The confidence in the geological interpretation is considered to be good, with highly continuous mineralised structures defined by good quality drilling.</li> <li>The deposit consists of moderate dipping mineralised lodes which have been interpreted based on logging and assay data from samples taken at regular intervals from angled drill holes.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>The Ulysses Mineral Resource area extends over a strike length of 1,600m and has a vertical extent of 176m from surface at 412mRL to 236mRL.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data</li> </ul>	<ul style="list-style-type: none"> <li>Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades within the deposit.</li> <li>Surpac software was used for the estimation.</li> <li>High grade cuts of between 10g/t and 30g/t were applied to 1m composite data. A total of 17 samples were cut.</li> <li>The parent block dimensions used were 5m NS by 10m EW by 5m vertical with sub-cells of 1.25m by 2.5m by 1.25m. The parent block size was selected on the basis of being approximately 50% of the average drill hole spacing in the deposit area beneath the existing pit.</li> <li>Historical production records were available for an open pit completed in 2002 and a portion of historic grade control data was available which largely confirms the current interpretations.</li> <li>Production from the GMD mining in 2016 and 2017 compared well with the resource model.</li> <li>Previous resource estimates have been completed and compare well with the current estimate.</li> <li>No assumptions have been made regarding recovery of by-products.</li> <li>No estimation of deleterious elements was carried out. Only Au was interpolated into the block model.</li> <li>An orientated ellipsoid search was used to select data and was based on parameters</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>to drill hole data, and use of reconciliation data if available.</i></p>	<p>derived from the variography.</p> <ul style="list-style-type: none"> <li>An initial interpolation pass was used with a maximum range of 40m which filled 53% of blocks. A second pass radius of 80m filled 41% of the blocks and a third pass range of 120m filled the remaining 7% of blocks.</li> <li>A minimum of 10 samples was used for the first pass, and this was reduced to six and then 2 for the subsequent passes. A maximum of 24 samples was used for all passes.</li> <li>Selective mining units were not modelled in the Mineral Resource model. The block size used in the model was based on drill sample spacing and lode orientation.</li> <li>Only Au assay data was available, therefore correlation analysis was not possible.</li> <li>The deposit mineralisation was constrained by wireframes constructed using a 0.3g/t Au cut-off grade in association with logged geology. The wireframes were applied as hard boundaries in the estimate.</li> <li>For validation, trend analysis was completed by comparing the interpolated blocks to the sample composite data within 25m easting intervals and by 10m vertical intervals.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource has been reported at a 0.75g/t Au cut-off based on assumptions about economic cut-off grades for open pit mining.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>The deposit has previously been mined using selective open pit mining methods. It is assumed that further open pit mining is possible at the project.</li> <li>Portions of the deposit are considered to have sufficient grade and continuity to be considered for underground mining.</li> <li>No mining parameters or modifying factors have been applied to the Mineral Resource.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical test-work was undertaken by previous operators at the project and has been reviewed</li> <li>Results of recent test work and current processing have demonstrated that good gold recovery can be expected from conventional processing methods.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for</i></li> </ul>	<ul style="list-style-type: none"> <li>The previous mining operation included the development of waste dumps at the site.</li> <li>The area is not known to be environmentally sensitive and there is no reason to think that</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<p>approvals for further development including the dumping of waste would not be approved.</p>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li>• <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Bulk density determinations were made on samples from drill core using the weight in air/weight in water method.</li> <li>• Bulk density values used in the resource were 2.1t/m<sup>3</sup>, 2.5t/m<sup>3</sup> and 2.8t/m<sup>3</sup> for oxide, transitional and fresh mineralisation respectively.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>Whether appropriate account has been taken of all relevant factors (ie 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).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). The Mineral Resource was classified as Measured, Indicated and Inferred Mineral Resource on the basis of data quality, sample spacing, and lode continuity.</li> <li>• The Measured portion of the Mineral Resource was defined where robust continuity of mineralisation was evident across the area drilled by 6.25m spaced holes, confined to the lodes in the west of the deposit.</li> <li>• The Indicated portion of the Mineral Resource was defined where good continuity of mineralisation was evident and within the drilled area where hole spacing ranged from 25m by 25m or less in the well drilled portion to 40m by 40m spacing.</li> <li>• The remaining portions of the deposit were classified as Inferred Mineral Resource due to poor grade continuity or sparse drilling.</li> <li>• The definition of mineralised zones is based on sound geological understanding producing a robust model of mineralised domains. This model has been confirmed by previous mining which supported the interpretation.</li> <li>• The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A documented internal audit of the Mineral Resource estimate was completed by the consulting company responsible for the estimate.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Ulysses Mineral Resource estimate is considered to be reported with a high degree of confidence. The consistent lode geometry and continuity of mineralisation is reflected</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>in the Mineral Resource classification. The data quality is good and the drill holes have detailed logs produced by qualified geologists.</p> <ul style="list-style-type: none"> <li>• The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>• The deposit is not currently being mined. Production records are available for the two phases of open pit mining completed at the deposit.</li> </ul>