

ASX Announcement 28 October 2016

Wingina Well Gold Resource Update - 144,000oz @ 4.1g/t in high grade lodes

ASX Code DEG

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Highlights

Wingina High Grade Gold Lodes Wingina Total Gold Resource

144,000oz @ 4.1g/t 288,000oz @ 1.6g/t

- Wingina Well Mineral Resource estimate increased 7% to 5.49Mt at 1.6g/t Au for 288,000 ounces of which 173,000oz (60%) is in Measured category
- Internal High Grade Lode within the resource comprises 1.1Mt at 4.1g/t Au for 144,000oz from surface
- > 50% of Wingina gold contained in the high grade lodes comprising 20% of the deposit tonnes
- Resource averages over 1,200 ounces per vertical metre/ ("oz/vm") from surface to 140m depth
- Mineralisation remains open at depth and on strike
- Wingina Well's host shear zone extends for over 50km within De Grey tenure and remains poorly tested
- ➤ Turner River Total Gold Resource is 366,000 oz @ 1.6 g/t (excludes gold contained at Discovery Project)
- Open pit optimisations underway at Wingina Well to identify recoverable ounces



Wingina Well - Resource Update

De Grey Mining Limited (ASX: DEG, "De Grey", "Company") is pleased to announce the new updated Mineral Resource Estimate for its 100% owned Wingina Well Gold Deposit, located near Port Hedland in the Pilbara region of Western Australia.

The resource update was completed mainly to quantify the size and extent of the identified higher grade gold lode(s) that occur within the broader mineralised system at Wingina. It has also included the results of recent extensional drilling, completed by De Grey The modelling and estimation was completed by Payne Geological Services Pty Ltd, an external and independent mining consultancy, using data provided by De Grey.

Wingina Well October 2016 Mineral Resource Estimate

(0.5g/t Cut-off above -100mRL, 1.0g/t Cut-off below -100mRL)

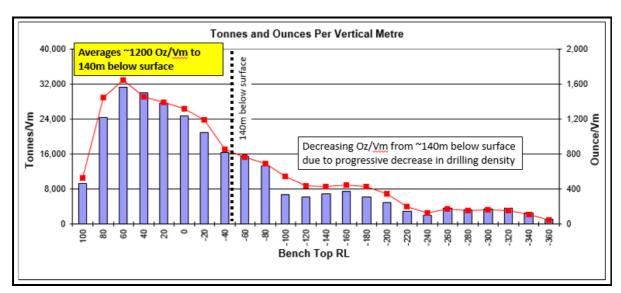
	Measured		Indica	ted	Inferred Total				
Zone	Tonnes	Au	Tonnes	Au	Tonnes	Au	Tonnes	Au	Au
	Mt	g/t	Mt	g/t	Mt	g/t	Mt	g/t	Ounces
Lode	0.78	4.1	0.12	3.8	0.2	4.1	1.10	4.1	144,000
Halo	2.30	0.9	0.86	1.0	1.2	1.2	4.39	1.0	144,000
Total	3.08	1.7	0.99	1.4	1.4	1.6	5.49	1.6	288,000

Rounding discrepancies may occur

The Total Mineral Resource Estimate as stated above is restricted to the higher 1.0g/t cutoff below -100mRL (200m below surface) to reflect the potential economics at depth.

The previous resource estimate was 5.1Mt @ 1.6g/t for 268,000oz using a 0.5g/t cut-off above -55mRL and 1.0g/t cut-off below -55mRL (~155m below surface). The new resource shows an overall 7% increase in reported ounces. This increase is primarily attributed to the individual modelling of the high grade lodes within the mineralised system. Other increases relate to lowering the depth of the 0.5g/t cut-off to -100mRL instead of the previous -55mRL and incremental additions related to the recent drilling.

Strongly developed oxide gold mineralisation is evident averaging over 1,200 oz/vm from surface to 140 metres below surface, peaking at 1622 oz/vm between 60m and 80m below surface.





The Wingina Well deposit is shear-hosted and occurs within deformed cherts and banded iron formation of Archean age. The cherty horizons form a prominent ridge along much of the extent of the identified shear zone. Mineralisation is developed within a NE-SW striking, sub-vertical zone with resource grade mineralisation defined over a strike length of 1,400m and to a vertical depth of 470m in the central portion of the deposit. The mineralisation remains open down dip over most of the deposit length.

Gold mineralisation is associated with extensive development of pyrrhotite resulting in iron rich gossanous zones in the oxidised portion of the deposit. The deposit is strongly oxidised, with depth of complete oxidation of at least 100m vertical but up to 240m within the main mineralised zone. Approximately 190,000oz of the total Mineral Resource lies within completely and partially oxidised material.

Within the broad mineralised zone, a distinctly higher grade lode structure was observed, generally adjacent to the footwall contact of the sheared chert/BIF sequence with the underlying metasediments. This lode was modelled and estimated separately from the lower grade halo of mineralisation.

The majority of resource drill holes at the Wingina project were completed by De Grey in 2003 and 2004. A small number of holes were drilled by joint venture partners in 2012 and 2014. De Grey recently completed an additional four diamond holes in 2016. The central portion of the deposit has now been drilled at 20m by 20m spacing and the peripheral zones have been drilled at a spacing of 40m or greater. A total of 177 RC holes and 44 diamond holes define the Mineral Resource.

Samples in mineralised zones were collected at 1m intervals and analysed for gold using a fire assay technique. QAQC protocols were in place for the various drilling programs and has confirmed the quality of the sampling and assaying.

The deposit was estimated using ordinary kriging ("OK") grade interpolation of 1m composited data within wireframes prepared using 0.3g/t Au envelopes for low grade mineralisation and 1.8g/t for the higher grade lodes. Interpolation parameters were based on the geometry of each zone and geostatistical parameters determined by variography. A high grade cut of 15g/t was used for the halo domain and 40g/t for the Lode domain.

The block dimensions used in the model were 10m EW by 4m NS by 10m vertical with sub-cells of 2.5m by 1.0m by 2.5m. Bulk density determinations from drill core and down hole density logging were collected by DEG in the resource drilling. Values used in the resource estimate were 2.1t/m³ for Oxide, 2.3t/m³ for Transition and 2.7t/m³ for Primary.

The portion of the resource defined by the 20m spaced drilling and displaying good continuity of mineralisation was classified as Measured Mineral Resource. The portion of the resource defined by the 20-40m spaced drilling and displaying good continuity of mineralisation was classified as Indicated Mineral Resource. The peripheral and deepest portions of the mineralisation was classified as Inferred Mineral Resource due to the wider spaced drilling.

The deposit is strongly open down dip in many areas and higher grade plunge extensions also remain open and untested. Strong potential exists to extend the resource with further drilling.



Metallurgical test work has demonstrated that gold recoveries of 93% for CIL processing or 70% for heap leach processing can be expected. Recoveries have been assessed with rapid leach times and coarse ground material, which augur well for project economics.

The shallow, tabular nature of the deposit and the medium to high gold grade suggests there is good potential for mining using open pit methods. The higher grade shoots at depth in the Wingina deposit have potential for underground exploitation.

Turner River Project

The Turner River Project is located in an infrastructure rich area, about 50km south of Port Hedland in the Pilbara region of Western Australia, with excellent main arterial access via dominantly bitumen roads. Port Hedland hosts excellent support facilities with a deep port, international airport and mining related businesses.

The Wingina deposit is the largest and most well drilled of the gold deposits within the project area. The gold mineralisation is hosted in a large regional shear associated with a Banded Iron Formation (BIF) and Chert sequence. This shear zone is known to extend at depth and for over 50km within De Grey's tenements and is considered to be only partially tested to date providing substantial exploration upside for further discoveries.

The project currently hosts three JORC 2012 gold resources at the flagship Wingina, Mount Berghaus and Amanda deposits for a total of 366,000oz.

Turner River Project - Total Gold Mineral Resources

		Measured		Indicated		Inferred		Total		
Deposit	Zone	Tonnes	Au	Tonnes	Au	Tonnes	Au	Tonnes	Au	Au
		Mt	g/t	Mt	g/t	Mt	g/t	Mt	g/t	Ounces
Wingina Well ¹	Lode	0.78	4.1	0.12	3.8	0.19	4.1	1.10	4.1	144,000
	Halo	2.3	0.9	0.86	1.2	1.23	1.2	4.39	1.0	144,000
	Subtotal	3.08	1.7	0.99	1.4	1.42	1.6	5.49	1.6	288,000
Mount Berghaus ²						0.9	1.4	0.9	1.4	43,000
Amanda ²						0.7	1.6	0.7	1.6	35,000
Turner River Project	Total	3.08	1.7	0.99	1.4	3.02	1.5	7.1	1.6	366,000

Rounding discrepancies may occur

Tonnes, grade and ounces rounded to reflect accuracy of estimates

Mt = Million tonnes q/t = grams/tonne

NB: Resource statement does not include gold resources contained in the Discovery deposit which will be reported separately in an updated resource statement on De Grey's Base Metals project.

As each of the three gold deposits are individually assessed, additional drilling completed and resource models are upgraded, open pit optimisations will be carried out to determine potential open pit mining scenarios. From this information, the company will determine the timing of a more detailed feasibility study. The new Wingina Well resource model is the first step in this assessment with Mt Berghaus the next in the series and to be followed by the Amanda deposit.

At Mount Berghaus, a program of detailed infill and extensional RC drilling will commence during November 2016 and enable completion of a further comprehensive

¹ Resources Statement by De Grey Mining Limited as reported to the ASX on October 24 2016

² Resources Statement by De Grey Mining Limited as reported to the ASX on June 23 2016



update of this resource model. Similarly, there are plans for the Amanda deposit to be further assessed and updated.

At Wingina Well, the deeper diamond drilling has also provided a significant understanding of the controls on mineralisation within the shear zone. This recognition has large positive ramifications to the prospectivity of the regional scale Tabba Tabba Thrust to host additional gold deposits.

Many additional gold targets exist along the 50km of prospective Wingina Well shear zone and within the larger Tabba Tabba Thrust. These targets and other areas provide excellent potential to increase the gold resources within the project area.

The most likely development scenario for the Wingina Well deposit will as an open pit with a potential underground mining operation. Additional ore will be sourced from open pits at the two satellite Mount Berghaus and Amanda deposits, which are both within a 10km radius of Wingina. Work is currently underway to identify new regional targets with the potential to host shallow oxide resources.

A simple CIL processing plant, typical of many gold mines in Western Australia, is the preferred processing option due to the excellent recoveries (>90%) achieved in previous metallurgical testwork on the Wingina ore.

Summary

The new resource model primarily focused on defining the consistent and robust high grade nature of the internal lodes, as this mineralisation is expected to provide improved mining economics. **Importantly, this lode hosts 50% of the contained gold within only 20% of the overall tonnes**. This smaller but significantly higher grade (+4g/t) material may provide greater flexibility in plant design and potential throughput rates and therefore reduced capital requirements.

For further information:

Simon Lill (Executive Chairman) or Davide Bosio (Director)

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COMPETENT PERSONS STATEMENTS

The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation prepared by Mr. Andrew Beckwith, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr. Beckwith is a consultant to De Grey Mining Limited. Mr. Beckwith 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 Resource and Ore Reserves". Mr. Beckwith consents to the inclusion in this 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. 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.

The information in this report that relates to Mineral Resources for the Mt Berghaus and Amanda deposits was reported to the ASX on 23 June 2016. De Grey confirms that it is not aware of any new information or data that materially affects the information included in that announcement, and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



JORC Code, 2012 Edition

JORC Table 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. Data validation procedures used. 	 Data was captured electronically to prevent transcription errors. Validation included comparison of gold results to logged geology to verify mineralised intervals. 				
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	A site visit was undertaken by the Competent Person in 2016 to examine geological features in outcrop, locate drill collars from recent drilling and confirm that no obvious impediments to future project exploration or development were present.				
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. 	 The confidence in the geological interpretation is considered to be good, with highly continuous mineralised structures lying within a distinct stratigraphic sequence of chert and BIF and mineralisation defined by good quality drilling. The deposit consists of steeply dipping mineralised lodes which have been interpreted based on logging and assay data from samples taken at regular intervals from angled drill holes. An internal high grade lode structure has been identified and modelled based mainly on its elevated gold content and consistent geometry and structural position 				
Dimensions	The factors affecting continuity both of grade and geology. The extent and variability of the	The Wingina Mineral Resource area extends over a strike				
	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.	length of 1,400m and has a vertical extent of 470m from surface at 100mRL to -370mRL.				
Estimation and modelling techniques	 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid 	 Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades within the deposit. Surpac software was used for the estimation. Samples were composited to 1m intervals and high grade cuts of 15g/t was applied to the halo assays and 40g/t to the lode assays. The parent block dimensions used were 4 NS by 10m EW by 10m vertical with sub-cells of 1.0m by 2.5m by 2.5m. The parent block size was selected on the basis of being approximately 50% of the average drill hole spacing in the well drilled portion of the deposit. Previous resource estimates have been completed and compare well with the current estimate. No assumptions have been made regarding recovery of by-products. No estimation of deleterious elements was carried out. Only Au was interpolated into the block model. An orientated ellipsoid search was used to select data and was based on parameters derived from the variography. An initial interpolation pass was used with a maximum range of 60m which filled 61% of blocks. A second pass radius of 120m filled 26% of the blocks and a third pass 				



Criteria	JORC Code explanation	Commentary
	mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	 range of 180m filled the remaining 13% of blocks. A minimum of 10 and a maximum of 30 samples were used. 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. Only Au assay data was available, therefore correlation analysis was not possible. The deposit mineralisation was constrained by wireframes constructed using a 0.3g/t Au cut-off grade in association with logged geology. An internal high grade lode was modelled using a 1.8g/t Au threshold. The wireframes were applied as hard boundaries in the estimate. For validation, trend analysis was completed by comparing the interpolated blocks to the sample composite data within 20m easting intervals and by 10m vertical intervals.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Mineral Resource has been reported at a 0.5g/t Au cut-off above -100mRL (200m vertical) based on assumptions about economic cut-off grades for open pit mining. The interval below -100mRL was reported at a cu-off grade of 1.0g/t Au to reflect a greater likelihood of extraction via underground methods
Mining factors or assumptions	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.	 Based on the broad, outcropping nature of the mineralisation and the substantial endowment of the deposit, it is assumed that open pit mining is possible at the project if demonstrated to be economically viable. Portions of the deposit are considered to have sufficient grade and continuity to be considered for underground mining. No mining parameters or modifying factors have been applied to the Mineral Resource.
Metallurgical factors or assumptions	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	 Metallurgical test-work was undertaken by previous operators at the project and has been reviewed Results of recent test work and previous processing have demonstrated that good gold recovery can be expected from conventional processing methods.



Criteria	JORC Code explanation	Commentary
	the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	• Assumptions made regarding possible waste and process 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 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.	 The area is not known to be environmentally sensitive and there is no reason to think that proposals for development including the dumping of waste would not be approved. The area surrounding the Wingina deposit is generally flat and uninhabited with no obvious impediments to the construction of dumps and other mine infrastructure.
Bulk density	 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. 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 the evaluation process of the different materials. 	 Bulk density determinations were made on samples from drill core using the weight in air/weight in water method. Density data obtained from downhole wireline logging were also used to determine the deposit bulk density. Bulk density values used in the resource were 2.1t/m³, 2.3t/m³ and 2.7t/m³ for oxide, transitional and fresh mineralisation respectively.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 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. The portion of the resource defined by the 20m spaced drilling and displaying good continuity of mineralisation was classified as Measured Mineral Resource. The portion of the resource defined by the 20-40m spaced drilling and displaying good continuity of mineralisation was classified as Indicated Mineral Resource. The peripheral and deepest portions of the lodes were classified as Inferred Mineral Resource due to the sparse drilling.



Criteria	JORC Code explanation	Commentary
Audits or	• The results of any audits or	 The definition of mineralised zones is based on sound geological understanding producing a robust model of mineralised domains. The Mineral Resource estimate appropriately reflects the view of the Competent Person. A documented internal audit of the Mineral Resource
reviews	reviews of Mineral Resource estimates.	estimate was completed by the consulting company responsible for the estimate.
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 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 The Wingina Mineral Resource estimate is considered to be reported with a high degree of confidence. The consistent lode geometry and continuity of mineralisation is reflected in the Mineral Resource classification. The data quality is good and the drill holes have detailed logs produced by qualified geologists. The Mineral Resource statement relates to global estimates of tonnes and grade. There has been no previous mining at the deposit so no production records exist.