DE GREY MINING LTD

"Developing the +1.0Moz Pilbara Gold Project"

ASX Announcement
22 August 2017

Diamond Drilling confirms Thick High Grade Gold Zones

Highlights

Diamond drilling at Withnell, Calvert and Mt Berghaus has recently been completed to obtain fresh bedrock mineralisation for metallurgical testwork and to confirm continuity of grade within the resource models.

Drilling:

- **Confirmed thick high grade gold mineralisation within proposed pit shells**
- **Correlates well with existing resource models**
- **Provides best intercepts as follows:**

Withnell	**12.0m @ 6.61g/t from 74m**
Calvert	**24.3m @ 2.52g/t from 34.7m**
	including **8.0m @ 5.34g/t**
Mt Berghaus	**12.9m @ 3.13g/t from 50m**

- **Preliminary metallurgical testwork on composite core will now be followed up with more detailed testwork to determine recoveries in the fresh bedrock, comminution, processing flowsheet and advance plant design.**
- **Diamond core at Dromedary, Roe and Camel testing the oxide zone remain to be processed and reported.**

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Summary

De Grey Mining Ltd (ASX: DEG, “De Grey” “Company”) is pleased to announce initial assay results of PQ diameter (85mm) diamond drill core recently completed at the Withnell, Calvert and Mt Berghaus deposits.

This drilling was designed with two purposes:

- To confirm and provide greater confidence in the resource model within the optimised open pit shells for due diligence purposes.
- Provide metallurgical sample for detailed evaluation of the fresh bedrock mineralisation. The samples are to be used to confirm recoveries, comminution and processing flowsheet to advance the processing plant design.

The PQ core has been logged and assayed on a ¼ core basis with ½ the core to be used for metallurgical purposes and the final ¼ core retained for geological use. Table 1 summarises the assay results from the ¼ core sampling. Figures 1-2 highlight the diamond drilling results in relation to previous drilling, resource block models and proposed open pit shells. Figure 3-4 show the Withnell and Calvert high grade zones in the drill core.

Table 1 Significant Gold Intercepts

Withnell (4.9Mt @ 1.6 g/t for 255,700oz above 100mRL)

NDD100 4.0m @ 2.2g/t from 63m

12.0m @ 6.61g/t from 74m

16.0m @ 1.5g/t Au from 90m

including **3.0m @ 3.39g/t**

NDD101 20.0m @ 1.82g/t from 47m

including **4.3m @ 5.49g/t**

Calvert (1.27Mt @ 1.3 g/t for 52,400oz)

“Best ever drill intercept at Calvert”

NDD102 **24.3m @ 2.52g/t from 34.7m**

including **8.0m @ 5.34g/t**

Mt Berghaus (3.52Mt @ 1.2 g/t for 140,800oz)

NDD104 **12.9m @ 3.13g/t from 50m**

including **1.4m @ 8.45g/t** and

including **0.9m @ 24.5g/t**

The drilling results are particularly encouraging as all three deposits show significant higher grade gold mineralisation than the average of the overall resource at each deposit.

At Withnell, the drilling results compare favourably with the adjacent drill results (Figure 1) confirming a **significant high grade zone** of the resource model within the proposed open pit mining shell.

The Calvert intercept (**24.3m @ 2.52g/t including 8.0m @ 5.34g/t**) is also located within the proposed open pit mining shell as shown in Figure 2 and closely reflects the resource model boundaries. This intercept ranks as the best drilling result seen to date at this deposit with a distinct higher grade zone along the basal contact marginal.

The high grade gold mineralisation **(1.4m @ 8.45g/t and 0.9m @ 24.5g/t)** at Mt Berghaus is associated with quartz veining which confirms previous high grade rock chip samples in quartz veins at surface.

Metallurgical samples will now be prepared based on the results with detailed testwork to commence shortly.

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*The information in this report that relates to **Exploration Results** is based on, and fairly represents information and supporting documentation prepared by Mr. Philip Tornatora, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr. Tornatora is a consultant to De Grey Mining Limited. Mr. Tornatora 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. Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

Figure 1 **Withnell Section 624250E, showing drilling, resource model and proposed open pit mining shell.**

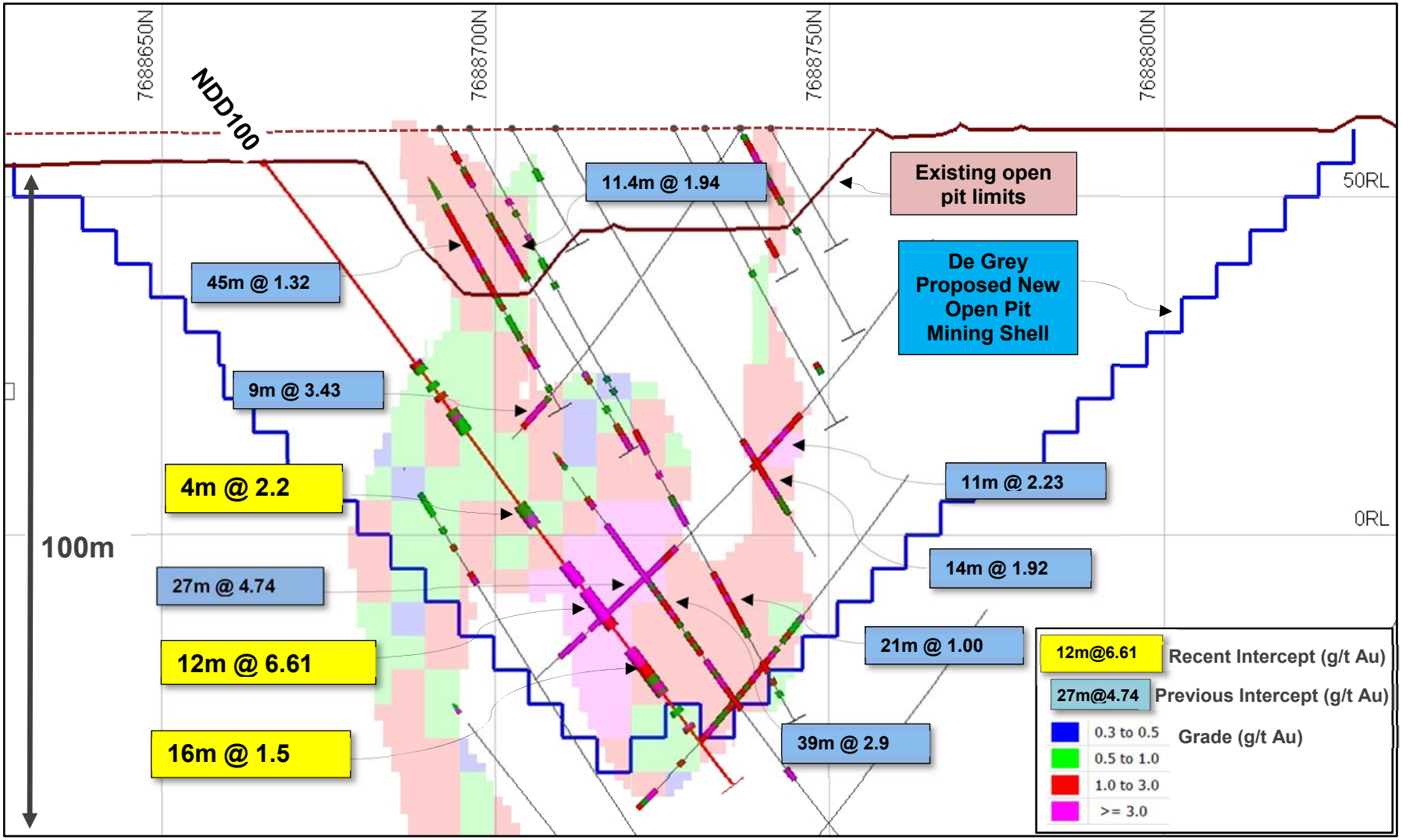

Figure 2 **Calvert Section 7689125N, showing drilling, resource model and proposed open pit mining shell.**

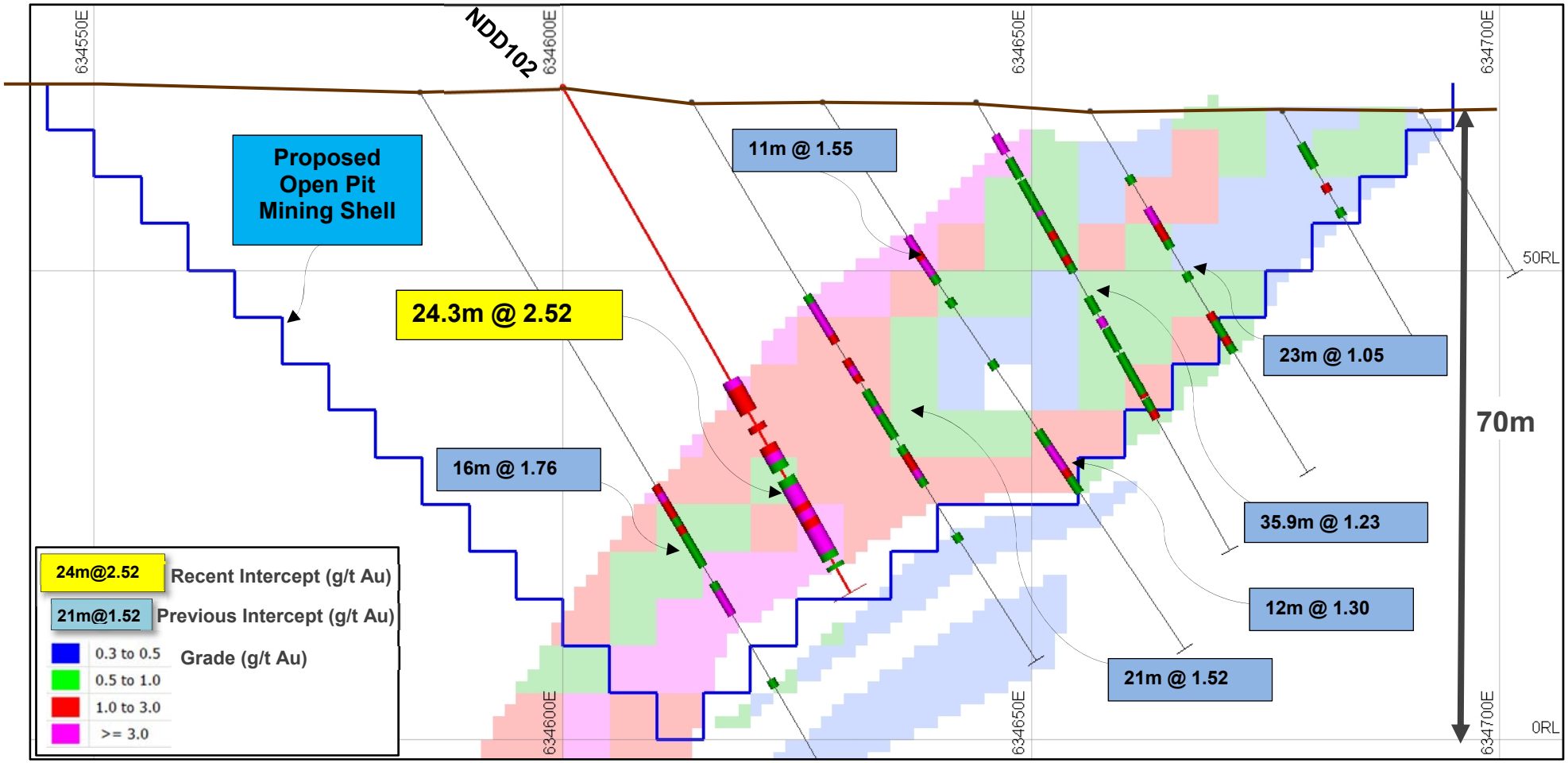

Figure 3 Withnell - NDD100 - High Grade Zone 12.0m @ 6.61g/t.

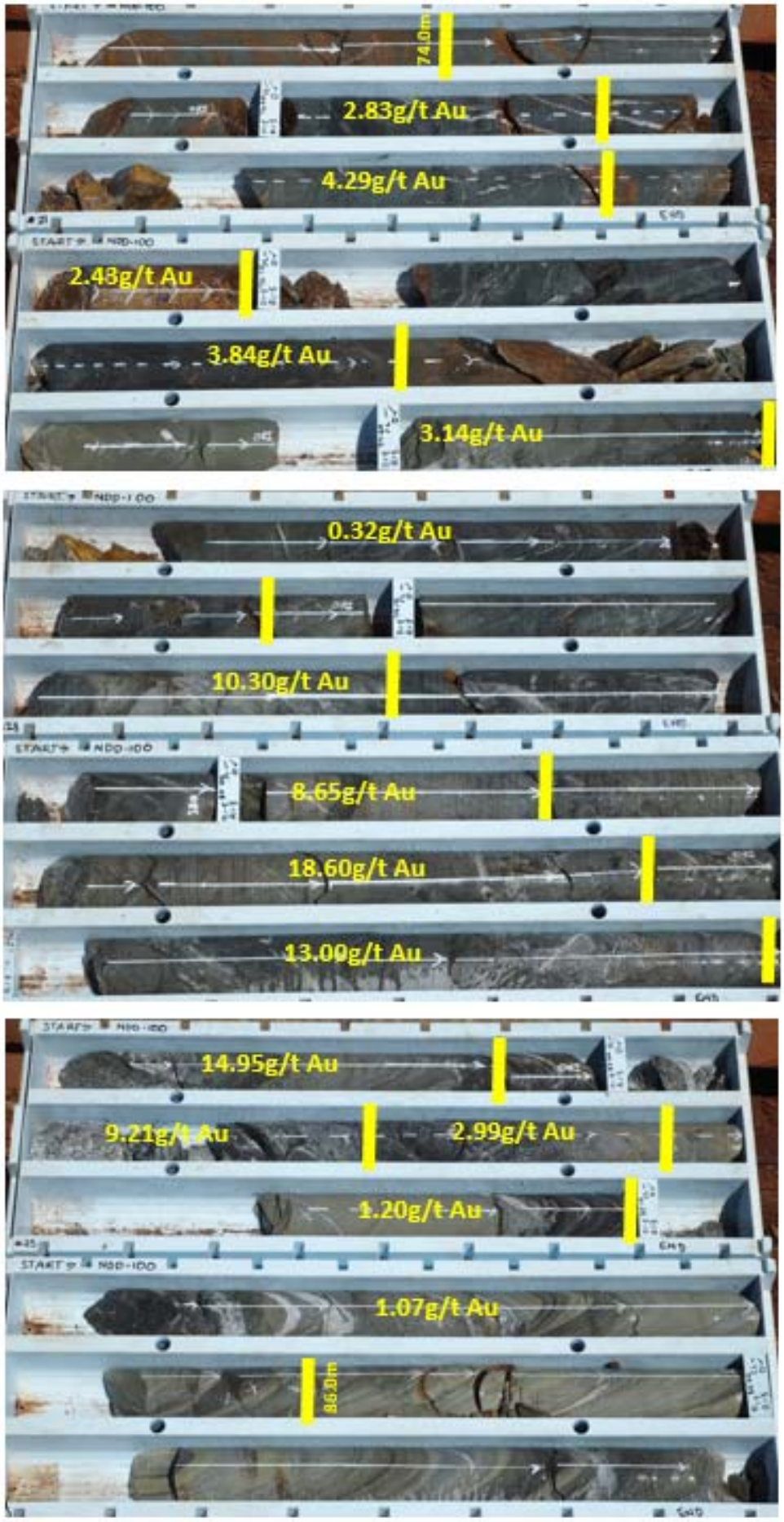

Figure 4 **Calvert - NDD102 - High Grade Zone 8.0m @ 5.34g/t within 24.3m @ 2.52g/t.**

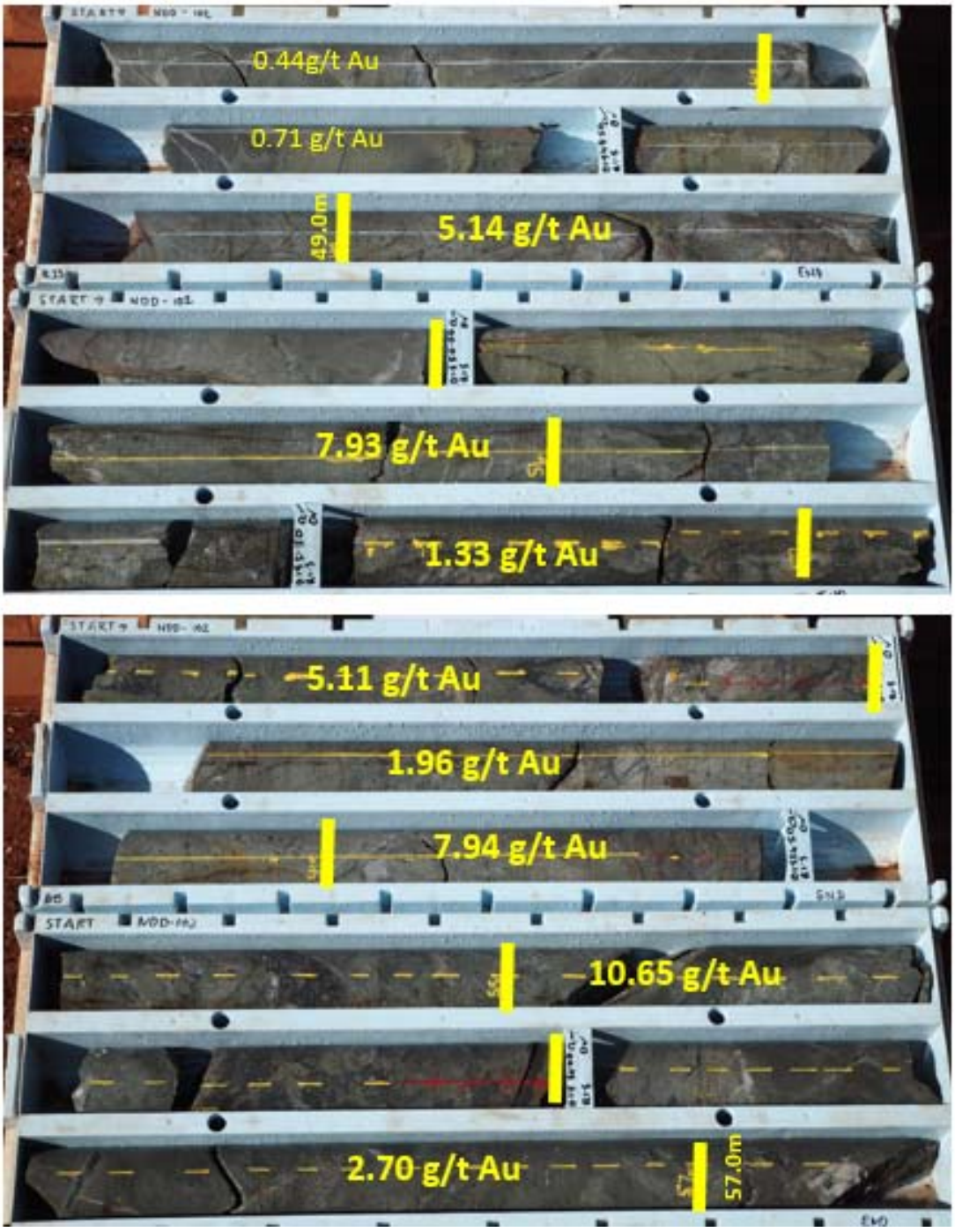

Table 2 Drilling Information

Prospect	HoleID	Depth From (m)	Depth To (m)	Downhole Width (m)	Au (g/t)	Collar East (GDA94)	Collar North (GDA94)	Collar RL (GDA94)	Dip (degrees)	Azimuth (GDA94)	Hole Depth (m)
Withnell	NDD100	37	50	13	0.79	624256	7688666	55	-52	350	115
Withnell	NDD100	63	67	**4**	**2.2**	624256	7688666	55	-52	350	115
Withnell	NDD100	74	86	**12**	**6.61**	624256	7688666	55	-52	350	115
Withnell	NDD100	90	106	**16**	**1.5**	624256	7688666	55	-52	350	115
Withnell	incl	90	93	**3**	**3.39**	624256	7688666	55	-52	350	115
Withnell	NDD101	47	67	**20**	**1.82**	624650	7688666	60	-64	180	71
Withnell	incl	62.7	67	**4.3**	**5.49**	624650	7688666	60	-64	180	71
Calvert	NDD102	34.7	59	**24.3**	**2.52**	634600	7689125	70	-60	90	62
Calvert	incl	49	57	**8**	**5.34**	634600	7689125	70	-60	90	62
Mt Berghaus	NDD104	50	62.9	**12.9**	**3.13**	656987	7700204	77	-65	325	75
Mt Berghaus	incl	54.4	55.8	**1.4**	**8.45**	656987	7700204	77	-65	325	75
Mt Berghaus	incl	62	62.9	**0.9**	**24.5**	656987	7700204	77	-65	325	75

Table JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• All drilling and sampling was undertaken in an industry standard manner • Samples were collected with a diamond drill rig drilling PQ diameter, triple tube samples. • After logging and photographing, PQ drill core was cut in quarters, with one quarter sent to the laboratory for assay and the other three quarters retained. Holes sampled over mineralised intervals on a nominal 1m basis except where cut to geological boundaries. • Sample weights ranged from 2-4kg • The independent laboratory then takes the sample and pulverises the entire sample for analysis as described below.
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.).*	• The drill holes comprised PQ core of a diameter of 85mm.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Core recovery is measured for each drilling run by the driller and then check by the Company geological team during the logging process. • Samples are considered representative with generally 100% recovery. • No sample bias is observed
Logging	• *Whether core and chip samples have*	• The entire hole has been geologically and

Criteria	JORC Code explanation	Commentary
	been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	geotechnically logged and photographed by Consultant geologists, with systematic sampling undertaken on the prospective parts of the stratigraphy based on rock type and alteration observed • The sample results are appropriate for a resource estimation and metallurgical test work
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Samples were collected with a diamond drill rig drilling PQ diameter, triple tube samples. After logging and photographing, PQ drill core was cut in quarters, with one quarter sent to the laboratory for assay and the other three quarters retained. Holes sampled over mineralised intervals on a nominal 1m basis except where cut to geological boundaries. • Industry prepared independent standards are inserted approximately 1 in 20 samples. • Each sample was dried, split, crushed and pulverised. • Sample sizes are considered appropriate for the material sampled. • The samples are considered representative and appropriate for this type of drilling and for use in a resource estimate.
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.* • *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.* • *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.*	• The samples were submitted to a commercial independent laboratory in Perth, Australia. • Au was analysed by a 50gm charge Fire assay fusion technique with a AAS finish • The techniques are considered quantitative in nature. • As discussed previously certified reference standards were inserted by the Company and the laboratory also carries out internal standards in individual batches • The standards and duplicates were considered satisfactory
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay*	• Sample results have been merged by the company's database consultants • Results have been uploaded into the company database, checked and verified • No adjustments have been made to the assay data. • Results are reported on a length weighted basis

Criteria	JORC Code explanation	Commentary
	data.	
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole collar locations are located by DGPS to an accuracy of +/-10cm. • Locations are given in GDA94 zone 50 projection • Diagrams and location table are provided in the report
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Drilling was for metallurgical purposes and infilled Indicated or Inferred zones of known resources. • All holes have been geologically logged and provide a strong basis for geological control and continuity of mineralisation • Sample result and logging will provide strong support for the results to be used in a resource estimate
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.* • *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.*	• The drilling is approximately perpendicular to the strike of mineralisation and therefore the sampling is considered representative of the mineralised zone. • In some cases, drilling is not at right angles to the dip of mineralised structures and as such true widths are less than downhole widths. This will be allowed for in resource estimates when geological interpretations are completed..
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been completed. Review of QAQC data has been carried out by company geologists.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• Withnell and Calvert drilling is on M47/476 and M47/480 which are located approximately 80km south of Port Hedland. The tenements are held by Indee Gold Pty Ltd, which De Grey mining has an option to purchase 100%. De Grey has the right to acquire Indee Gold for payment of $15M by July 2018. • Mt Berghaus drilling is on E45/3390 which is held by Last Crusade PTY LTD, a 100% subsidiary of De Grey Mining
Exploration done by	• *Acknowledgment and appraisal of exploration by other parties.*	• Extensive drilling of the Indee orebodies leading to the definition of Ore Reserves and the development

Criteria	JORC Code explanation	Commentary
other parties		of a mining and processing operation was carried out mainly by Range River between 2003 and 2008. • De Grey has carried out several programs of RC and diamond drilling previously at Mt Berghaus
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The mineralisation targeted is hydrothermally emplaced and sediment/quartz hosted gold mineralisation within a shear zone and is similar in style to many other Western Australian gold deposits.
Drill hole Information	• *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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* • *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.*	• Drill hole location and directional information provide in the report.
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Results are reported to a minimum cutoff grade of 0.3g/t gold with an internal dilution of 3m maximum. Intervals over 0.5g/t Au and 2gm metal content are reported. • Intercepts are length weighted averaged. • No maximum cuts have been made.
Relationship between mineralisa-tion widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• The drill holes are interpreted to be perpendicular to the strike of mineralisation. • Drilling is not always perpendicular to the dip of mineralisation and true widths are less than downhole widths..

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.*	• Cross sections are provided in the report.
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 significant results are provided in this report. • The report is considered balanced and provided in context.
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.*	• Drilling was for metallurgical purposes and infilled Indicated or Inferred zones of known resources.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further metallurgical testwork will be carried out by Independent laboratories on the drill core