

ASX Release

4 August 2017

Positive Scoping Study completed at Pilbara Gold Project

De Grey Mining Limited (ASX: DEG) is encouraged by the outcomes of this Study and the potential for significant improvements as identified within the Study. The Company has commenced Pre Feasibility Study activities.

On-going work programs currently underway are anticipated to add substantial value to the overall project, as additional resources are defined and included into the mine scheduling, metallurgical characteristics are confirmed and optimised, and assessment commences on other value add evaluations such as:

- inclusion of low cost heap leach processing of low grade mined material given pre-existence of heap leach processing infrastructure;
- addition of new resources
- increased plant throughput for improved economies of scale; and
- · longer term underground mining.

Work programs, many of which are already underway and substantially advanced include:

- Definition of additional new shallow and potentially open pit amenable resources at the Heap Leach Stockpile, Toweranna and possibly Mallina prospects (subject to pending assay results) – well advanced with final results expected in current Q3 2017.
- Detailed metallurgical drilling of large diameter core (PQ size) to obtain specific metallurgical samples of both the oxide and sulphide zones within the proposed open pits – drilling currently underway with completion current Q3 2017.
- Detailed metallurgical testwork to determine final recoveries for each ore classification from each proposed open pit. Preliminary metallurgical investigations on existing core are currently underway with preliminary results expected Q3 2017.
- Update detailed design and costing of the proposed processing plant. Q4 2017
- Update detailed mining and processing costing based on the new metallurgical data. Q4 2017
- Application of new mining tenements as required
- Advanced discussions and agreement on updated aspects of the <u>existing</u> Indee Gold Native
 Title Mining Agreement including the amalgamation of the Turner River project proposed
 mining areas. *Initial meeting held and discussions progressing.*



SCOPING STUDY PARAMETERS - CAUTIONARY STATEMENTS

The Scoping Study ("Study") referred to in this announcement has been undertaken to determine the potential viability of an open pit mining and gold processing plant to be constructed at the Pilbara Gold Project based on a number of different resources within the Project area. The purpose of the Study is to determine the probable scale of such a plant and to determine whether to proceed with more definitive feasibility studies. This study is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and evaluation work and appropriate studies are required before De Grey will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.

The Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While De Grey considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping study will be achieved.

The Study includes existing JORC 2012 Code measured, indicated and inferred resources defined within the project. Investors are cautioned that there is a low level of geological confidence in Inferred Resources and there is no certainty that further drilling will result in the determination of Measured or Indicated Resources or that the Production Target will be realised.

To achieve the range of outcomes indicated in the Scoping Study, funding in the order of \$111M will likely be required including the \$15M acquisition cost of the Indee Gold Project. Investors should note that there is no certainty that De Grey will be able to raise that amount of funding when needed. It is also likely that such funding may only be available on terms that may be dilutive to or otherwise affect the value of De grey's existing shares.

It is also possible that De Grey could pursue other "value realization" strategies such as sale, partial sale or joint venture of the project. If it does, this could materially reduce De grey's proportionate ownership of the project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Key components of the Study and the Material Assumptions used in the Study are contained within this announcement. Information includes preliminary pit optimisations, estimated mine production schedules, metallurgical recoveries from existing test work and costs based on comparison with similar operations and estimates provided by mining and engineering contractors. The basis of all Material Assumptions is presented in the following section.

De Grey's Chairman, Mr Simon Lill, commented:

"The Scoping Study results, using reasonable assumptions, are highly encouraging. The Project currently shows a 5-year open pit mine life, but there is clear potential for significantly increased cash flow through increases in mine life, which we expect to achieve through the Company's current resource program.

Further substantial upside is seen in improved mine scheduling, increased economies of scale, inclusion of low capital cost heap leaching of low grade mined material and potentially improved recoveries within the sulphide material."



De Grey Mining Limited (ASX: DEG, "De Grey" or "the Company") is pleased to announce a positive outcome to the Pilbara Gold Project ("Project") Scoping Study ("Study"), which incorporates the adjacent Indee Gold and Turner River projects located close to the town of Port Hedland in Western Australia.

Scoping Study Base-case Outcomes

- Managed by independent mining consultants Mintrex, with inputs from Cube Consulting and De Grey.
- Based on only open pit mining within the existing 1Moz resource base
- Treatment via a new, purpose built 1Mtpa oxide CIL plant with a sulphide flotation and regrind circuit proposed to be added in year 3.
- Base case of 1Mtpa of material to be mined from multiple pits within the project area

Key Study (base-case) outputs include:

 Total resource mined 	4.8Mt at 2.1g/t Au for approximately 325,000oz Au
 Resource categories 	38% Measured, 43% Indicated, 19% Inferred
	65% oxide & 35% fresh (sulphide)
 Gold production 	~290,000 oz. Au recovered over 5 years
	Ranges from 65,000 oz in Year 1 to 51,000oz in Year 4
C1 cash cost (LOM)*	< A\$1,000/oz (calculated by De Grey)
AISC cost (LOM)**	< A\$1,200/oz (calculated by De Grey)
Project Capex	\$78M for new oxide CIL plant and associated infrastructure + \$18M for sulphide circuit upgrade in year 3, funded from cashflow

^{*}C1 cash cost (LOM) – C1 cash costs is calculated as direct cash costs including mining, processing, haulage, reclamation and general administration costs.

^{**}AISC cost (LOM) - All In Sustaining Costs is calculated as all operating costs including mining, processing, haulage, reclamation, general administration, royalties and sustaining capital (including the sulphide flotation upgrade). Excludes initial plant capital. In the Study the AISC includes Sustaining Costs and sulphide flotation upgrade capital, but excludes start-up capex)



The Study shows a positive cash flow outcome based on a base line 1Mtpa throughput and the establishment of a new stand-alone CIL plant. The Company has already commenced more detailed evaluation work programs in order to complete this work prior to its January 2018 election date to complete the Indee acquisition. Metallurgical drilling is nearing completion across all resources likely to be considered in the next level of study. Detailed evaluation of recoveries from each deposit will be assessed for improved plant design. Delineation of additional shallow resources are anticipated from the Heap Leach Stockpile, Toweranna and Mallina (subject to pending drill results). New resources will be included into the overall mine life and improved mine scheduling under the PFS evaluation.

Further assessment for improved economies of scale, plant design and costings are to be considered under the PFS which are anticipated to add significantly to the project economics.



Pilbara Gold Project Scoping Study

De Grey Mining Limited (ASX: DEG, "De Grey" or "the Company") is pleased to announce a positive outcome to the Pilbara Gold Project ("Project") Scoping Study ("Study") and advises that the Company is now proceeding towards a Pre-Feasibility Study (PFS).

Pilbara Gold Project showing prospect locations.



Background

De Grey commenced exploring the Turner River Project, as 100% owner, on listing on the ASX in 2002. The Company had considerable early exploration success with the discovery of the Wingina, Amanda and Mt Berghaus gold deposits, together with the Discovery and Orchard Tank base metal deposits. From 2008 a number of third parties managed the project under various farm-in joint venture agreements. In February 2016, the then Turner River Project farm-in company withdrew from the agreement without earning any equity.

Following a substantial increase in the gold price since De Grey last controlled the Project (2008 ~ A\$800/oz; 2016 ~ A\$1,600/oz), the Board carried out a formal review of the project's potential. The internal review concluded the Turner River Project had considerable unrealised exploration potential across the tenement package, together with existing gold resources of ~360,000 ounces which all remained open either along strike and/or at depth. The review also suggested that the Turner River Project would be difficult to develop as a stand-alone gold mine without significant additional resources. The neighbouring Indee Gold Project, to the immediate west, was recognised as an acquisition opportunity to provide the scale to support an economically viable mining project.

De Grey formalised an option agreement to acquire Indee Gold Pty Ltd (ASX release: 9 February 2017). Under this agreement, De Grey retains an exclusive right to acquire 100% of Indee Gold Pty Ltd for a commitment to meet the annual tenement expenditure requirement (~\$600,000) and a payment of \$15M by 24 July 2018.



Since securing this agreement, De Grey has focussed on assessing the economic viability of the combined Indee and Turner River Projects, now collectively referred to as the Pilbara Gold Project.

On 3 April 2017, the Company announced a significant resource upgrade for the Pilbara Gold Project. The larger resource base of 18.84Mt at 1.7g/t Au for 1.0Moz (JORC Code 2012) provided the necessary scale for a preliminary economic evaluation which formed the basis of the current Study.

The Study was managed by independent mining consultants Mintrex, with inputs from Cube Consulting and De Grey. The Material Assumptions and results of the Study are summarised as follows.

Scoping Study - Development Philosophy

The Study is based on a new CIL and sulphide flotation processing plant to be built on existing granted mining leases near the key Withnell deposit. The main philosophy was to access shallow open pit oxide material for processing in advance of continued batched oxide and fresh material. This would assist the deferral of capital associated with the construction of the sulphide flotation circuit.

The Company's Mineral Resource base of 18.84Mt also indicated potential for a larger scale processing plant. The Study considered pit optimisations at throughput rates of 1Mtpa and 2Mtpa. The pit optimisations indicated that the material reporting to the plant for processing supported a base case plant scale of 1Mtpa, providing a mine life of just under 5 years. Optimisation of a larger scale plant throughput will be evaluated during the Pre-Feasibility Study currently underway.

Key Inputs

The analysis used in the Study is based on the following key inputs:

- Mintrex and Cube Consulting on mining costs
- Mintrex processing costs (as described in following sections);
- Pit optimizations by Cube Consulting (inclusive of Inferred Resources);
- 2 main open pits, Wingina and Withnell, representing 62% of feed, supplemented by 5 smaller satellite pits;
- Gold price of US\$1,250 per ounce;
- US\$ exchange rate with AU\$ of 0.75;
- Total royalties and fees of 3.5%;
- 1 year plant construction period;
- 2% inflation rate, 2% gold price escalation; 2% cost escalation
- 7% real discount rate

Other key financial aspects **not** considered in the Study, included De Grey's project-related tax losses of approximately \$40M and the Indee Gold acquisition cost of \$15M, to be paid by 24 July 2018.



Base Case Model (1Mtpa plant throughput)

Oxide resource mined
Fresh resource mined
Total resource mined
Resource categories
3.1Mt at 2.1g/t Au for 208,900 oz contained (65%)
1.7Mt at 2.1g/t Au for 116,400 oz contained (35%)
4.8Mt at 2.1g/t Au for 325,000 oz contained
38% Measured, 43% Indicated, 19% Inferred

Strip ratio range3.0:1 to 12.4:1 (waste: ore)

Metallurgical recovery
 Withnell – Oxide - 90.8% - 96%; Fresh - 80%

(key pits) Wingina – Oxide - 95%; Fresh – 95%

■ Gold production ~290,000 oz Au recovered over 5 years

Ranges from 65,000 oz in Year 1 to 51,000oz in Year 4

C1 cash cost (LOM)
 AISC cost (LOM)
 A\$1,000/oz (calculated by De Grey)
 A\$1,200/oz (calculated by De Grey)

(includes sustaining and sulphide flotation upgrade capital,

excludes start-up capex,)

Project Capex \$78M for new oxide CIL plant and associated infrastructure

+ \$18M for sulphide circuit upgrade in year 3, funded from

cashflow

 Pre-tax net cash flow (undiscounted, escalated)

\$112M after capital, operating costs and royalties

Capital repayment 3.6 years

Real discount rate 7%

Sensitivity Analysis

Overall the Project is sensitive to movements in the gold price, like many Australian gold projects. The Study assumed a gold price of US\$1,250 per ounce with a 2% annual escalation. The exchange rate was assessed at US\$:AU\$ 0.75. A US\$100 increase or a US\$100 decrease in the assumed gold price has the following effects on the net cash flow based on the current 5 year mining life.

Gold Price (US\$)	Undiscounted Net Cash Flow (AU\$)
	(pre-tax after capital and operating costs)
\$1,350	\$140 - \$160M
\$1,250	\$110M - \$120M (base case)
\$1,150	\$70M - \$80M

NB - Exchange Rate constant at US\$:AU\$0.75



Funding

The Company will use a staged funding approach to the ongoing development of the Project. This is necessitated by the fact that each stage in this process will have a different capital requirement and if the results of each stage are positive, then the Company will be able to proceed to the next stage. In addition, a positive outcome at a relevant stage is expected to result in an increase in the value of, and interest in, the Company. This, in turn, should result in the increased ability of the Company to access ongoing funding at a more advantageous price.

The first funding stage will be for the PFS. The Company has budgeted an amount of \$600,000 for the PFS which has now commenced as a result of the positive scoping study set out in this announcement. If the PFS is positive, the next stage is to proceed with a DFS, the costs of which will be determined in part by the PFS, but for which the Company anticipates a budget of somewhere between \$1M and \$2M, depending on level of drilling required to convert inferred resources to indicated resources. These amounts are indicative only.

The Company believes that reasonable grounds exist to assume that the staged funding for the Project will be available. These grounds are set out below:

- (a) The Company has been able to raise funding for its exploration over the past years in order to progress its projects in what has been a difficult market for gold exploration entities. In the 2015, 2016 and 2017 years, the Company has raised \$1.75 million, \$1.67 million and \$1.82 million respectively, a total of \$5.24 million. These raisings have been via placements, rights issues and share purchase plans, and indicate a clear base of support from existing shareholders and third-party investors. The Company considers it will be able to raise funding for the next stages of the Project, which advance the Project from exploration to development.
- (b) The outcomes delivered by the Scoping Study provide confidence to the Board in the ability of the Company to fund the development capital through conventional debt and equity financing. Notwithstanding this, the normal risks for the raising of capital will apply to the Company, such as the state of equity capital and debt markets, the results of the PFS and DFS, the price of gold and the other general risks set out on page 13 of this announcement.
- (c) The Company is currently in discussions with several parties regarding funding options for the Project and has entered into confidentiality agreements with a number of those parties. The details of these discussions cannot be disclosed at this time for commercial reasons however it includes seeking funding via the methods set out in clause (d) below. These discussions have been held with substantial mining investment funds, Chinese parties, significant cornerstone investors, high net worth individuals and broking houses. No material or binding agreements for funding have been signed however the parties that the Company is in discussions with are well recognised in the industry for funding similar projects and have shown a strong interest in providing that funding. Any actual funding proposal when received would of course be conditional (subject to normal conditions



imposed by a financier including due diligence, full documentation, security and the like) and accordingly while the interest received is positive, the nature of those discussions are preliminary in nature and based on the scope of the work to date. As the Company advances the Project, those discussions will continue and become more certain as a result of the matters set out in clause (e).

- (d) The funding models being considered will depend on the outcomes of the PFS and DFS, but as set out above will likely be conventional debt and equity financing, but may include convertible notes, gold streaming, prepayment of royalties and other options for projects of a similar nature.
- (e) The Company believes that its funding opportunities will be improved at the completion of the PFS and then the next stage, the DFS as a result of:
 - (i) an increase in resources that would serve to improve the mine life of the Project;
 - (ii) confirmation of earlier metallurgical test work to support, optimise and potentially improve recoveries; and
 - (iii) finalisation of further engineering studies to improve the accuracy of the assessed capital and operating costs.
- (f) The Company will also consider alternative "value realisation" strategies such as sale, partial sale or joint venture of the Project. These strategies are common where a company is not in a position to fund a project in its own right and the sale, partial sale or joint venture to a significant third party will allow the Company to be in a position to fund its remaining share of the Project.
- (g) The raising of equity by the Company may be dilutive to existing shareholders, but that will depend on the price at which the then funding is completed. Where the market capitalisation of the Company is low as against the amount of equity that is required to be raised at the time, there is a high likelihood that shareholders will be substantially diluted. This is to be balanced against the reasonable expectation of the Company that as the Project becomes more advanced, the value of the Company is more likely to increase, resulting in the actual dilution to existing shareholders being less. The reality is that in this case, although the percentage holding of each shareholder will be reduced, the value of that holding will be assessed against a Company that is anticipated to have a higher market capitalisation at the time of the raising.



Current and Future Work Programs

Mallina - The Company has recently completed a RC drilling program of 7,588m at the 50,000 to 120,000 oz Mallina Exploration Target. (ASX announcement, 9 February 2017, "Acquisition of Indee Gold provides scale and development momentum).

Drilling targeted a 3.2km zone of mineralisation with favourable results returned from initial 4m composites samples already reported. There are additional 4m composites samples to be reported with all 1m results pending.

Withnell - Dromedary Trend - RC drilling program of 3,800m has been completed with all 4m composite sample results pending.

Heap Leach Stockpile - drilling program of 366m has recently been completed (49 holes) with results from a resource estimate pending.

Metallurgical testwork – underway on existing drill core, with diamond drilling for further metallurgical samples in progress.

Underground potential – The potential for underground mining exists at both the Withnell (and Wingina resources.

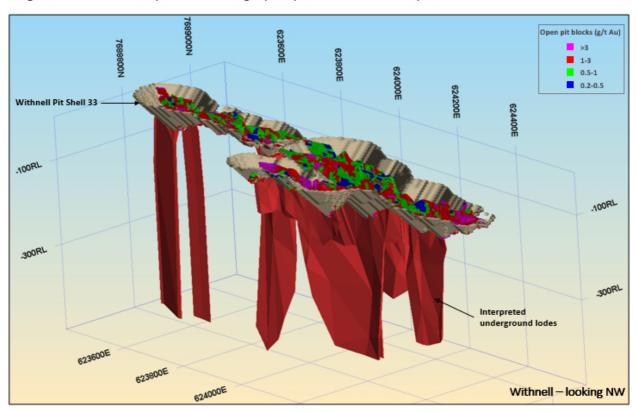


Figure 1: Withnell Deposit showing open pit shells with deeper lodes



For further information:

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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. 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.

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 Mallina Exploration Target is based on, and fairly represents information and supporting documentation compiled 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. No material change has occurred since the target was reported.

Forward Looking Statements

This announcement includes forward-looking statements that are only predictions and are subject to risks, uncertainties and assumptions, which are outside the control of De Grey Mining Ltd.

Actual values, results, interpretations or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements in the announcement as they speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, De Grey Mining Ltd does not undertake any



obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward-looking statements is based.

This announcement has been prepared by De Grey Mining Ltd. This document contains background information current at the date of this announcement. The announcement is in summary form and does not purport to be all-inclusive or complete.

Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.

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This announcement does not constitute investment advice and has been prepared without considering the recipients investment objectives, financial circumstances or particular needs and the opinions and recommendations in this announcement are not intended to represent recommendations of particular investments to particular persons.

Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments. To the fullest extent of the law, The Company, its officers, employees, agents and advisors do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinion, estimates, forecasts or other representations contained in this announcement. No responsibility for any errors or omissions from the announcement arising out of negligence or otherwise is accepted.

Risks

The securities of the Company are considered speculative.

There are specific risks which relate directly to the Company's business. In addition, there are other general risks, many of which are largely beyond the control of the Company and the Directors. The risks identified in this section, or other risk factors, may have a material impact on the financial performance of the Company and the market price of the securities of the Company. The risks are summarised below.

The specific risks for the Company include the requirement to raise capital (as set out in this announcement); the potential for dilution when capital is raised; risks associated with exploration generally and then mining in the event the project reaches that stage; market conditions relating to the price of gold and the Australian dollar and the US dollar; operational risks associated with exploration and mining; and the need for the Company to comply with its commitments that relate to its licence tenure.

The general risks for the Company include the economic conditions that exist at the time, including interest rates, inflation, and currency exchange rates; share market conditions generally which can impact capital raising activities and investor sentiment; reliance on key personnel and the like.

This is not an exhaustive list. An investment in the Company is not risk free and the Directors strongly recommend potential investors to consider the risk factors described and to consult their professional advisers before deciding whether to invest in the Company.



SUMMARY - PILBARA GOLD PROJECT SCOPING STUDY RESOURCES

The Scoping Study is based on the resources summarised in Table 1 for both the Turner River Project and the Indee Gold Project – together the Pilbara Gold Project.

The total resources across the Pilbara Gold Project include 54% in the combined Measured and Indicated categories and 46% in the Inferred category, with 39% of the total resource classified as oxide and 61% as fresh (sulphide).

Table 1 Pilbara Gold Project Total Mineral Resource Estimate (JORC Code 2012)*

Indee	Project	Mineral	Resource	es								
Type	Measured In			Indicate	ed Inferred			Total				
Type	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz
Oxide	0.85	1.8	48,100	0.99	1.9	60,200	0.52	1.4	23,400	2.36	1.7	131,700
Fresh	0.45	1.4	20,900	3.25	1.7	179,300	3.08	2.1	206,600	6.78	1.9	406,700
Total	1.31	1.6	69,000	4.24	1.8	239,500	3.60	2.0	229,900	9.15	1.8	538,400
Turne	Turner River Project Mineral Resources			S								
Tyroo	Measured			Indicated		Inferred		Total				
Туре	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz
Oxide	2.68	1.8	152,100	0.72	1.4	31,400	1.72	1.3	72,000	5.12	1.6	255,500
Fresh	0.40	1.6	20,500	0.48	1.6	24,200	3.69	1.4	163,600	4.57	1.4	208,400
Total	3.08	1.7	172,700	1.20	1.4	55,600	5.41	1.4	235,600	9.69	1.5	463,900
Total I	Mineral	Resource	es									
Tyroo	Measured		Indicated		Inferred		Total					
Type	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz
Oxide	3.53	1.8	200,200	1.71	1.7	91,600	2.24	1.3	95,300	7.48	1.6	387,200
Fresh	0.85	1.5	41,400	3.73	1.7	203,500	6.77	1.7	370,200	11.35	1.7	615,100
Total	4.39	1.7	241,700	5.44	1.7	295,100	9.01	1.6	465,500	18.84	1.7	1,002,300

^{*}Refer to ASX release dated 3 April 2017 for further information



MINING

Pit optimisations

Pit optimisations were completed by Cube Consulting (Cube) based on cost and physical inputs supplied by Mintrex and resource block models produced by Payne Geological Pty Ltd.

To simulate dilution and ore loss during mining, a factor of 5% mining dilution and 95% mining recovery was applied. A royalty of 3.5% of gross gold revenue was used inclusive of the Western Australian mineral royalty and a 3rd party royalty.

Mining costs are variable due to the seven different open pits and include a base cost mining price of \$1.60/t with incremental cost increase of \$0.06/t per 10m depth increase from surface. Drill and blast costs of \$0.6/t and \$1.04/t for oxide and fresh respectively were applied. Additional load and haulage costs have been attributed to each deposit depending on the distance from the processing plant. The mining costs are summarised in Table 2.

Table 2 Mining cost applied to each deposit

With	nell, Camel, Dromedary Roe, Calvert and Mt Berghaus	Wingina and Amanda		
Oxide (\$/t)	Fresh (\$/t)	Oxide (\$/t)	Fresh (\$/t)	
\$30.68	\$33.17	36.87	38.94	

Discounted cash flows based on a discount rate of 10% were generated for each pit shell as applied to a 1Mtpa processing plant throughput and a nominal gold price of \$1600 per ounce. The discounted cash flows were used only as indicative and for comparison purposes to aid the optimal pit shell selections for each deposit. Once the pit shells were chosen, the proposed mining schedule was produced by Cube for financial modelling by Mintrex.

Geotechnical

The pit wall slopes on all deposits were assumed to have an overall slope angle of 45 degrees. Further geotechnical mapping and drilling will be required for final pit designs.

The existing pits at both Withnell and Camel are relatively shallow at 45m and 25m maximum depths respectively. Neither pit displays any significant failures or slumps in the walls in the 10 years after mining ceased.



PRODUCTION SCHEDULE

The pit optimisations have defined the quantity of resources that is proposed to be mined as summarised in Table 3 that formed the basis of a Life of Mine (LOM) production schedule and therefore Production Target for the Pilbara Gold Project. The material to be mined comprises 38% Measured, 43% Indicated, 19% Inferred resources and represent 65% oxide and 35% fresh material. Other Exploration Targets and the heap leach stockpile **were not** considered in the Study.

Cautionary statement

Investors are cautioned that there is a low level of geological confidence in Inferred Resources and there is no certainty that further drilling will result in the determination of Measured or Indicated Resources or that the Production Target will be realised.

The proposed mining and processing schedule covers a 5 year period, commencing with Measured and Indicated Oxide Resources from the main Camel and Wingina Stage 1 open pits blended with lesser portions of Inferred Resources until mining of fresh material from the Withnell pit commences. Thereafter, mill feed is batched processed in the plant as either oxide or fresh material as determined by the schedule over the remaining processing life (Figures 2 and 3).

The LOM Production Target in this study is summarised as follows:

Average production **57,667oz/year Au** for 288,336oz recovered Total resource mined 4.8Mt at 2.11g/t Au for 325,400 oz contained Oxide resources **3.1Mt at 2.12g/t Au** for 208,900 oz contained (65%) Fresh resources **1.7Mt at 2.11g/t Au** for 116,400 oz contained (35%) Resource Categories 38.4% Measured, 42.6% Indicated, 19% Inferred Plant Construction 1 year Initial Life of Mine **5 years** (not including construction) **3.0:1 to 12.4:1** (waste: ore) Strip ratio range



Table 3 Resources to be mined by Deposit

Deposit	Category	Oxide	Grade	Ounces	Fresh	Grade	Ounces	Total	Grade	Ounces
		tonnes	(g/t Au)		tonnes	(g/t Au)		tonnes	(g/t Au)	
Camel-Roe	Measured	150,982	3.2	15,345	50	2.4	4	151,032	3.2	15,349
	Indicated	192,019	3.3	20,430	34,597	3.8	4,218	226,616	3.4	24,648
	Inferred	36,531	1.9	2,207	1,214	3.3	128	37,746	1.9	2,335
	Subtotal	379,532	3.1	37,982	35,861	3.8	4,350	415,394	3.2	42,331
Wingina	Measured	575,409	2.8	51,375	3,108	2.0	202	578,517	2.8	51,577
Stage 1	Indicated	77	2.2	5	0	0.0	0	77	2.2	5
	Inferred	0	0.0	0	0	0.0	0	0	0.0	0
	Subtotal	575,486	2.8	51,381	3,108	2.0	202	578,594	2.8	51,582
Wingina	Measured	426,570	2.2	30,067	6,071	3.1	615	432,641	2.2	30,681
Stage 2	Indicated	59,269	1.8	3,494	0	0.0	0	59,269	1.8	3,494
	Inferred	19,589	1.4	890	0	0.0	0	19,589	1.4	890
	Subtotal	505,428	2.1	34,451	6,071	3.1	615	511,499	2.1	35,065
Wingina	Measured	1,001,978	2.5	81,442	9,179	2.8	816	1,011,157	2.5	82,258
1&2 Total	Indicated	59,347	1.8	3,500	0	0.0	0	59,347	1.8	3,500
	Inferred	19,589	1.4	890	0	0.0	0	19,589	1.4	890
	Subtotal	1,080,915	2.5	85,831	9,179	2.8	816	1,090,093	2.5	86,647
Withnell	Measured	396,404	1.4	17,645	291,896	1.7	15,683	688,300	1.5	33,328
Stage 1	Indicated	121,171	2.0	7,937	948,961	2.0	62,309	1,070,133	2.0	70,246
	Inferred	93,391	1.6	4,909	35,801	3.1	3,512	129,192	2.0	8,421
	Subtotal	610,966	1.6	30,491	1,276,659	2.0	81,504	1,887,625	1.8	111,995
Mt	Measured	0	0.0	0	0	0.0	0	0	0.0	0
Berghaus	Indicated	59,059	2.0	3,760	45,448	2.4	3,481	104,507	2.2	7,241
	Inferred	429,343	1.7	23,838	26,656	2.3	1,965	455,999	1.8	25,803
	Subtotal	488,402	1.8	27,598	72,104	2.3	5,446	560,506	1.8	33,044
Calvert	Measured	0	0.0	0	0	0.0	0	0	0.0	0
	Indicated	313,923	1.5	14,656	229,777	1.7	12,420	543,700	1.5	27,076
	Inferred	7,678	1.2	304	3,006	1.7	166	10,684	1.4	470
	Subtotal	321,602	1.4	14,960	232,782	1.7	12,586	554,384	1.5	27,546
Dromedary	Measured	0	0.0	0	0	0.0	0	0	0.0	0
	Indicated	18,849	1.7	1,013	10,511	2.3	793	29,360	1.9	1,806
	Inferred	99,571	2.2	7,086	477	2.6	40	100,048	2.2	7,126
	Subtotal	118,420	2.1	8,099	10,988	2.4	833	129,408	2.1	8,932
Amanda	Measured	0	0.0	0	0	0.0	0	0	0.0	0
	Indicated	0	0.0	0	0	0.0	0	0	0.0	0
	Inferred	71,455	1.7	3,918	79,647	4.3	10,957	151,101	3.1	14,876
	Subtotal	71,455	1.7	3,918	79,647	4.3	10,957	151,101	3.1	14,876
TOTAL	Measured	1,549,364	2.3	114,431	301,125	1.7	16,503	1,850,489	2.2	130,935
	Indicated	764,369	2.1	51,295	1,269,294	2.0	83,221	2,033,663	2.1	134,516
	Inferred	757,559	1.8	43,152	146,801	3.6	16,769	904,360	2.1	59,921
	TOTAL	3,071,292	2.1	208,879	1,717,220	2.1	116,493	4,788,511	2.1	325,371

The Life of Mine (LOM) Production Target stated in this announcement comprises 38.4% Measured, 42.6% Indicated, 19% Inferred Resources (JORC Code 2012).

Investors are cautioned that there is a low level of geological confidence in Inferred Resources and there is no certainty that further drilling will result in the determination of Measured or Indicated Resources or that the Production Target will be realised.



Total Material Mined Schedule – Tonnes by deposit by mining period

3,500,000

2,500,000

1,500,000

1,000,000

500,000

10 11

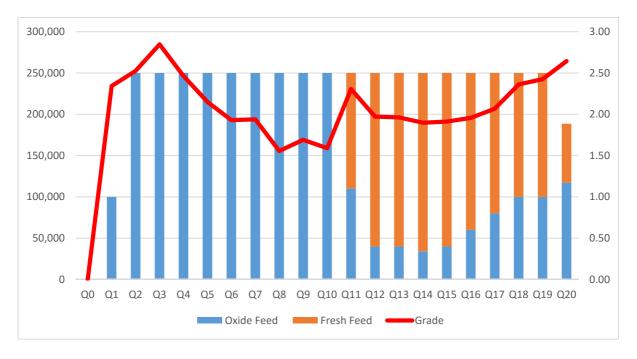
■ Withnell ■ Camel-Roe ■ Dromedary ■ Calvert ■ Wingina St1 ■ Wingina St2 ■ Mt Berghaus ■ Amanda

13

8

Figure 3 Processing Schedule – Tonnes and Grade

3



The Life of Mine Schedule comprises the following categories and percentages of 38% Measured, 43% Indicated and 19% Inferred resource categories from the mined portions of the existing resources.



Table 4 Resources to be mined by resource category per year

Year	1	2	3	4	5	Total
Measured	61.0%	33.0%	36.7%	14.3%	46.8%	38%
Indicated	26.8%	30.7%	49.2%	74.1%	32.4%	43%
Inferred	12.2%	36.4%	14.0%	11.6%	20.8%	19%

In the 1st year, approximately 88% is in the measured and indicated categories, 2nd year 64 %, 3rd year 86%, 4th year 88% and 5th year 79%. The average inferred resources in the overall schedule is approximately 19% The second year has a higher inferred proportion of mined resource at 36% due to the fact mining of the oxide portion of the Mt Berghaus deposit was required to be scheduled prior to the construction of the fresh sulphide circuit in year 3. The open pit resource at Mt Berghaus is expected to have infill drilling to elevate the inferred category resource areas to indicated or better prior to development so that reserves can be defined within the final definitive feasibility study. The PFS study will also look to improve the mining scheduling and it is expected an increased measure and indicated proportion will be moved to year 1 through to year 3.

METALLURGY

Gold mineralisation within the Pilbara Gold Project is classified into two geological domains:

- Mallina Shear Zone quartz-sulphide-carbonate shear hosted gold mineralisation in a sequence of dominantly siltstone and sandstones.
- Tabba Tabba Thrust quartz-sulphide-carbonate shear hosted gold mineralisation within a package of volcaniclastic sediments, banded iron formation (BIF) and ultramafic rocks.

Recoveries

The metallurgical character of each deposit has been determined by previous metallurgical testwork, the degree of weathering and the host geological domain.

The Withnell and Camel deposits, both located along the Mallina Shear Zone, have been previously mined to shallow depths of between 25m to 40m. This mining occurred during 2006 - 2008 and was focussed on only oxide material processed via a heap leach operation on site. The 850,000 tonne oxide heap leach stockpile remains on site and has not been included in this Study. Drilling of this stockpile has recently been completed to determine the overall grade for inclusion in the Project resource base.

The Withnell and Camel deposits have had significant metallurgical testwork completed on the mineralisation extending below the former mining operation. Earlier testwork included examination of both CIL and heap leach processing options and provided a large amount of relevant data. At Wingina, testwork has been completed by both De Grey and previous joint venture partners.



The oxide testwork across the main deposits indicates excellent recoveries of gold can be expected with recoveries between 90.8% to 96% in a CIL leach circuit. The testwork indicated that recovery is not generally sensitive to grind size which ranged from 53um to 150um. The high leaching recoveries are expected within 8-24 hours.

The fresh mineralisation at Withnell has had preliminary CIL and sulphide flotation testwork. The initial testwork indicated recoveries up to 89% can possibly be achieved through a secondary flotation and ultrafine regrind circuit, however a conservative value of 80% was adopted for the Scoping Study. Further detailed optimisation work based on the proposed flotation circuit is planned as the pre-feasibility study advances. Wingina fresh mineralisation is amenable to conventional CIL leaching after flotation with recoveries of 95% expected.

The other smaller deposits have only had limited or no testwork completed. Metallurgical recoveries and processing parameters for these smaller deposits (Amanda, Roe and Dromedary) have been assumed based on weathering and host shear zone characteristics. The majority of the mineralisation in these smaller deposits is within the oxide zone, with only the Calvert deposit hosting a large proportion of mineralisation in fresh material. Recoveries have been assigned the same as Withnell, being 80% for fresh and 90.8% for oxide.

The recoveries for Mt Berghaus were assumed to be similar to the Mallina Shear Zone hosted mineralisation at Withnell based on weathering, mineralisation style and geological setting; even though an earlier composite sample of fresh and oxide material returned a bottle roll value in excess of 90%.

Table 5 Summary of recoveries in the Scoping Study

Material	Unit	Oxide	Fresh
Withnell	%	90.8	80.0
Dromedary	%	90.8	80.0
Camel-Roe	%	90.8	80.0
Calvert	%	90.8	80.0
Wingina	%	96.0	95.0
Mt. Berghaus	%	90.8	80.0
Amanda	%	96.0	95.0



Comminution Characteristics

A review of the previous comminution testwork completed on oxide and fresh mineralisation from both the Indee Gold Project and Turner River Project indicates a hardness range of moderate – moderately hard.

The uncompressive strength results (UCS) for Withnell oxide mineralisation ranges from 13 - 24 MPa and for Wingina fresh mineralisation from 21.5 - 95.2 MPa, which is viewed as moderately tough. The UCS for Wingina oxide mineralisation ranges from 21.6 - 44 MPa and from 56.7 - 107.9 MPa for Wingina fresh mineralisation, which is also viewed as tough.

The crushing work indices (CWi) for Withnell oxide mineralisation ranges from 2.9 - 8.2 kWh/t and 4.1 - 9.8 kWh/t for Withnell fresh mineralisation, which is low to moderate. The Wingina CWi for fresh mineralisation was reported as 13.4 kWh/t.

The Rod Mill Work Indices (RWi) for Withnell oxide mineralisation ranges from 13.5 - 14.5 kWh/t and 16.7 - 22.4 kWh/t for the Withnell fresh mineralisation, which is low to moderately hard. Camel reported a RWi value of.9.3 kWh/t, which is viewed as low. The RWi for Wingina oxide mineralisation ranges from 11 - 22 kWh/t and 21.4 - 22 kWh/t for Wingina fresh mineralisation, which is viewed as moderately hard.

The Bond Work Index (BWi) for oxide samples indicates a moderate degree of hardness with BWi values from 12.8 - 15kWh/t. The fresh mineralisation is classified as moderately hard, with BWi values ranging from 14.5 - 18.3kWh/t.

Abrasion Index (Ai) results to date indicate that all types of mineralisation from the Indee Gold Project are moderately abrasive. The results show that the fresh material is more abrasive than the oxide material. Both the oxide and fresh mineralisation present at Wingina, are highly abrasive. For a robust primary crushing and single stage milling circuit, the highly abrasive nature of the mineralisation is not considered a major problem, however increased rates of crusher and mill liner wear and higher grinding media consumptions are likely to be seen.

Only one SAG mill test (SMC) has been completed previously, with results from the Withnell fresh material resulting in an Axb value of 51, which is viewed as moderately soft. Further comminution testwork is required on the various deposits. De Grey expects this work to be undertaken as the pre-feasibility study advances.



PROCESSING

The Study considers a new centralised, stand-alone processing plant located on the granted mining leases within the Indee Gold Project. The proposed plant is designed to be initially a 1Mtpa oxide CIL circuit processing oxide ore with a second stage flotation circuit being added to process the fresh sulphide-bearing mineralisation. The plant is proposed to process oxide material for the first two years prior to fresh material being batch processed thereafter in conjunction with further oxide material.

The proposed plant is to be located near the existing heap leach stockpile and will utilise any previously established mining infrastructure where possible, including the existing ROM pad, haul roads from the Withnell and Camel open pits, camp facility, water bores and access roads.

The Study also considered a 2Mtpa processing plant, however evaluation of this sizing was deferred due to insufficient open pit mine life at this rate. Notably, the economies of scale achieved with a larger plant throughput is considerable based on significantly reduced processing costs per unit tonne. Accordingly, future studies will include any opportunity to increase plant throughput and improve processing costs.

Mintrex established the plant design based on a review of previous metallurgical testwork conducted on the various deposits. This data, although not optimised for the processing flowsheet, provides a strong basis for the plant design. Further detailed metallurgical testwork is planned to optimise the flowsheet, and in particular confirm and potentially improve the recovery of the fresh sulphide mineralisation.

The processing cost estimations for both1Mtpa and 2Mtpa are as follows:

Table 6 Summary of processing costs

Plant throughput scale	Deposit	Oxide	Fresh
		\$/t	\$t
1Mtpa	Withnell, Roe, Dromedary, Mt Berghaus	20.13	23.63
	Wingina, Camel, Amanda	19.97	26.05
2Mtpa	Withnell, Roe, Dromedary, Mt Berghaus	14.20	16.53
	Wingina, Camel, Amanda	17.03	20.60

A simplified version of the plant flow sheet is shown in Figure 4.



The plant design proposed comprises a simple, robust and typical industry proven CIL plant for treatment of the oxide material and a secondary sulphide flotation and ultra-fine regrind circuit for the fresh material, and broadly comprises the following:

- Single stage crushing;
- Dead stockpile and reclaim hopper;
- Single-stage SAG mill and classification;
- Rougher flotation of fresh material, ultra-fine grinding and intensive leaching of flotation concentrates;
- Leaching (oxides and flotation tails) and adsorption;
- Elution and electrowinning; and
- Smelting.

The open pit material is to be hauled to the ROM pad either via haul trucks direct from the pits in close proximity or hauled by road train from pits at a greater distance. Oxidised and fresh material will be separately stockpiled and batched through the crusher at a nominal rate of 200 tonnes per hour (tph) for oxide material with a 70% utilisation rate. Grinding will be at a nominal rate of 125tph and 91% utilisation rate with a 3,500 kW SAG/ mill.

Feed for the initial two years will be oxide material mostly from the Wingina and Camel open pits, prior to the fresh material being introduced in year 3. The oxide and fresh material will be batch treated from year 3 according to the processing schedule.

The fresh material, dominantly from the Withnell open pit, hosts a significant portion of the fine free gold in sulphides (pyrite) that requires pre-treatment by flotation to extract the sulphides from the host rock, quartz veining and associated alteration. The flotation process is expected to liberate approximately 90% of the sulphides to produce approximately 5-8% of the total feed tonnage as a sulphide concentrate (e.g. 1,000,000t of fresh feed would produce approximately 50,000 to 80,000t of sulphide concentrate). Ultra-fine grinding of the resultant sulphide concentrate is undertaken and then enters an intense cyanide leach tank prior to being fed back into the primary leach tanks.

The non-CIL liberated gold in fresh rock is dominantly hosted in the sulphides, but there is also a portion hosted in associated quartz veining and alteration requiring the non-sulphide tail material to be fed back into the primary leach tanks for recovery of the remaining contained gold. In effect, the entire fresh material is leached with only a small volume of sulphides requiring finer regrinding. Of note, the Withnell deposit is currently the only deposit with sufficient data to indicate the fresh mineralisation requires sulphide flotation and regrinding, however further testwork is required to assess the recovery and recovery process for the fresh material in the other deposits. De Grey intends to obtain further fresh drill core samples from each deposit for detailed metallurgical evaluation.



Leaching is to occur in 6 primary leach tanks for the oxide material and fresh tails with an additional smaller intensive leach tank added for the sulphide concentrate component. Leaching is considered to be relatively fast at typically 8-24 hours, with the plant designed to provide a minimum of 24 hours residence time in the leach tanks for gold extraction onto carbon. Loaded carbon (gold pregnant) is then acid washed and loaded into an elution column for a hydrochloric acid wash and rinse. Elution stripping follows with the gold collected via an electrowinning process. Copper and silver levels are considered low and are not expected to cause any significant adverse impact of the gold leaching by cyanide nor interfere with carbon gold loadings.

The final processed tailings are then screened and discharged to a tailings storage facility.

Water for the CIL plant will initially be supplied from the existing open pits and then from dewatering bores located near the open pits or from dedicated water bores along the Mallina Shear Zone or the nearby Yule River sand and gravel aquifer. A brief review of the existing hydrological data indicates there should be no foreseeable issue with both dewatering of the open pits and obtaining sufficient process water in reasonable proximity to the proposed plant site.

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Figure 4 Simplified processing flowsheet



INFRASTRUCTURE

The Project is well located, in the mining rich region of the Pilbara and within close proximity to Port Hedland which has a deep water port, international airport, hospital and extensive mining related services. Access to the project is excellent via the sealed North West Coastal Highway for approximately 70km and then 10km on a graded gravel road to the proposed plant location.

The new CIL and sulphide flotation plant and supporting infrastructure including a tails storage facility is proposed to be established on existing mining leases near the main Withnell deposit where existing ROM pad, waterbores and haul roads are already in existence. This is also the location of the 850,000 tonne heap leach stockpile. The Withnell, Camel, Roe, Dromedary and Calvert deposits are all located on the existing granted mining leases, with new mining lease and miscellaneous licences required for the Wingina, Mt Berghaus and Amanda deposits.

As the project is within daily commuting distance on mostly sealed highway, the Study has assumed a large proportion of the processing and administration personnel will be residential in Port Hedland with a smaller portion of mining contractors housed on site in the existing mine camp. The existing mine camp will require upgrading from the current 20 man accommodation back to the original 50 man capacity. Power for the processing plant and camp is assumed to be diesel generated. Future feasibility studies will evaluate the possibility and costs associated with connecting to the main power grid running north of the North West Coastal Highway and/or potential for gas power generation.

At the plant site, an existing ROM pad in good order has been previously established along with other minor infrastructure including a Telstra connection and partial mobile network coverage, which could be improved markedly with the establishment of a booster tower. Lined solution dams also remain from the previous heap leach operation. Site office buildings etc. will be required to be established. On the mining front, existing haul roads from the Withnell and Camel pits remain serviceable with new haul roads to be established for all the other pits.

CAPITAL COST ESTIMATE

The project has an initial Stage 1 capital estimate of \$78M including a 15% contingency. The estimate is based upon an engineering, procurement and construction management (EPCM) approach whereby the owner assumes the builder's risk. As a result, the cost estimate does not include a builder's margin.

The capital cost estimate has been prepared as a scoping study estimate and is presented in Quarter 2 2017 (Q2 2017) Australian dollars (AUD) to an accuracy level of +/- 35% with a 90% level of confidence.

The capital cost to establish the Stage 2 sulphide flotation circuit is estimated at \$18M (funded through cashflow) and is planned to be operational in year 3.



The following assumptions and clarifications apply to the capital cost estimate:

- The capital estimate is based on an EPCM implementation strategy, assuming the EPCM engineer is based in WA;
- The indicative site layout and process plant design upon which the capital cost estimate has been developed is based on a previous project;
- It is assumed that the cost of mining related earthworks, such as the run of mine (ROM) ore stockpile area, primary crushed ore stockpile or mining haulage roads, are the responsibility of the mining contractor and form part of the mining prestrip costs;
- It is assumed that the power generation will be via a build-own-operate (BOO) power provider with only exclusions to the BOO agreement included within the capital cost estimate;
- The estimate is based on current wage rates in WA;
- The estimate is based on the expected site safety regulars and work practices in WA;
- It has been assumed that sufficient manpower resources are available in WA to undertake the project; and,
- Cost estimate allowances have been made for non-processing infrastructure on the basis of what would be considered 'typical' for an operation of this size and scale in WA; and
- It has been assumed that the raw water borefield is a nominal five kilometres from the
 process plant. This distance has been used to estimate the water transfer pipeline cost;
 and,

OPERATING COST ESTIMATE

Operating cost estimates have been prepared for the DGP to allow for preliminary modelling of a preliminary processing schedule, taking into account the variabilities of the ore sources across the different open pits.

The operating cost estimates cover the administration, owner's mining, processing and maintenance cost areas of the DGP. The operating costs have been prepared to a scoping study level and are presented in Australian Dollars (AUD) to an accuracy of +/- 35% with a 90% level of confidence as at Quarter 2 2017 (Q2 2017).

The operating costs have been estimated utilizing a variety of sources including:

- First principle estimates;
- Consumable consumption rates based on the metallurgical testwork information provided by De Grey;
- Power and grinding media consumptions estimated by Mintrex on the basis of data from previous projects with similar ore properties;
- Quotations from previous projects for the supply of consumables, equipment and services;



- Maintenance costs and mobile equipment requirements estimated by Mintrex on the basis of similar operations;
- Organizational structures prepared by Mintrex;
- De Grey advice; and,
- Published and unpublished costs from similar sized Australian operations.

ENVIRONMENTAL AND SOCIAL PERMITTING

The Project is located on crown land pastoral leases with the all the existing deposits, except Wingina, Mt Berghaus and Amanda, located on granted mining leases with environmental approvals associated with the previous heap leach operation that ran between 2006 and 2008.

The granted mining leases are currently on care and maintenance from the previous and rehabilitated mining operation with only limited remedial and monitoring requirements. Previous environmental studies were completed at that time and approved, however it is expected further updated baseline studies will be required for flora, fauna, groundwater and other aspects prior to mining being re-approved. Additionally, the site will require approval for the new CIL and sulphide processing plant and tailings storage facility.

The deposits of Wingina, Mt Berghaus and Amanda will require new mining lease applications and miscellaneous licences for proposed haul roads to the proposed processing site.

All the existing mining leases are listed in a previously negotiated and signed mining agreement with the local Kariyarra Native Title group. The other proposed mining areas would also fall within the Kariyarra Native Title claim.

At both the Withnell and Wingina deposits, deeper higher grade plunging shoots occur beneath the proposed open pits which will be considered for their underground mining potential (Figure 1).



Table 7 Breakdown of capital cost estimate



Area 25 - Flotation and Regrind

Total Capital Cost Estimate with Regrind and Flotation



15%

\$

\$

De Grey Gold Project **Capital Cost Summary Sub-Total Cost** Contingency **Total Cost** 1,503,291 Area 10 - Crushing \$ 15% \$ 1,728,784 Area 20 - Milling & Classification \$ 7,561,256 15% \$ 8,695,444 Area 25 - Flotation & Regrind \$ \$ 2,051,197 2,358,876 15% Area 30 - Leaching & Adsorption \$ \$ \$ Area 40 - Tailings Disposal \$ 120,897 15% 139.031 Area 50 - Metal Recovery & Refining \$ 927,790 15% \$ 1,066,958 Area 70 - Plant Services \$ 648,216 15% \$ 745,449 86,505 15% Area 60 - Reagents 99,481 \$ \$ Subtotal - Mechanical Equipment Supply \$ 12,899,151 14,834,024 \$ 1,289,915 15% \$ 1,483,402 Plant Bulk Earthworks \$ Concrete Supply and Construction \$ 3,869,745 15% \$ 4,450,207 Structural, Mechanical and Platework Installation 6,675,311 \$ 5,804,618 15% \$ Structural Steel Supply \$ 3,224,788 15% \$ 3,708,506 Platework Supply \$ 3,224,788 15% \$ 3,708,506 Piping Supply and Installation 3,869,745 15% 4,450,207 \$ \$ Electrical & Instrumentation Supply and Installation \$ 5,804,618 15% \$ 6,675,311 Subtotal - Plant Construction \$ 27,088,217 \$ 31,151,450 **Process Plant Total** \$ 39,987,368 \$ 45,985,473 15% 3,520,150 Plant Buildings & Equipment \$ 3,061,000 \$ \$ 15% \$ 2,881,900 Site Services Infrastructure 2,506,000 High Voltage Power \$ 1,700,000 15% \$ 1,955,000 Plant Vehicles \$ 200,000 15% \$ 230,000 4,135,000 15% 4,755,250 Tailings Storage Facility \$ \$ Accommodation Camp \$ 2,000,000 15% \$ 2,300,000 Subtotal - Infrastructure \$ 13,602,000 15,642,300 \$ 15% 6,897,821 Plant and Infrastructure EPCM Costs \$ 5.998.105 \$ \$ Plant and Infrastructure Construction Overheads \$ 1,999,368 15% 2.299.274 Subtotal - EPCM Costs and Overheads 7,997,474 \$ 9,197,095 \$ First Fill 15% \$ 967,436 \$ 1,112,552 1,289,915 15% \$ 1,483,402 Spare Equipment \$ Subtotal - Spares and First Fills 2,257,351 2,595,954 \$ \$ Owner's Costs \$ 4,000,000 15% \$ 4,600,000 \$ \$ Subtotal - Owner's Costs 4,000,000 4,600,000 78,020,822 **Total Capital Cost Estimate** \$ 67,844,193 \$ 15,653,000 18,000,000

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83,497,193

96,020,822



MATERIAL ASSUMPTIONS

•	The study, including capital estimates, mining and processing
	costs, has been completed to an accuracy of +/-35% with a 90%
	level of confidence and has been undertaken based on only open
	pit mining from the existing resources defined at the various
	deposits and the establishment of a new processing plant on site
	near the Withnell deposit. The proposed plant comprises an initial
	oxide CIL processing circuit with a secondary fresh sulphide
	flotation and regrind circuit added in year three to process fresh
	open pit material. Further studies are required to assess the
	contribution potential underground mining may add to the projects
	economics.

- The estimation of capital costs was prepared by Mintrex for the
 process plant and associated infrastructure has been prepared in
 accordance with the definition provided by the AusIMM
 Monograph 27 Cost Estimation Handbook (Second Edition); the
 scoping study capital cost has been prepared as a 'Class 5'
 estimate, with the capital cost estimate having been assessed
 against capital costs for similar recent projects and benchmarked
 cost factors where applicable.
- Cube Consulting ("Cube") provided open pit mine engineering services. The work comprised of collation of input parameters, open pit optimisation studies on the measured, indicated and inferred category JORC 2012 resources of the project areas containing the following deposits Withnell, Camel-Roe, Dromedary and Calvert at the Indee Gold Project, and Wingina, Mount Berghaus and Amanda at the Turner River Project. A series of shells from the open pit optimisations were selected and used to generate a Life-of-Mine (LOM) production schedule.
- Mintrex provided an estimate of processing and mining costs, including haulage, rehabilitate and administration costs.
- The financial model has been completed as a nominal model by Mintrex. A life of mine (LOM) financial analysis was performed using the discounted cash flow (DCF) method with a 2% inflation rate, 2% gold price escalation; 2% cost escalation and 7% real discount rate. The financial analysis is used to determine the potential economic return of the project over the LOM.
- The discounted cash flows have not been reported due to the level of accuracy of this study.

Gold Price

- The Study has used a base-case gold price of US\$1250 with an exchange rate of US\$0.75 to A\$1.00AUD.
- The gold price selected for the study was at the average prevailing market spot gold price and exchange rate at the commencement of the study. The price has also been assessed as one that has been utilised across a number of studies presented by peers.
- The current gold price is US\$1,270, with an exchange rate of US\$0.80 to A\$1.00.

Mining Cost

The mining costs have been determined by independent consultant Mintrex with input from independent consultant Cube.

Mining costs



Withnell, Camel, Dromedary Roe, Calvert and Mt Berghaus Oxide - \$30.68 Fresh - \$33.17 Wingina and Amanda deposits Oxide - \$36.87 Fresh - \$38.94 Overall pit slopes were assumed to be 45 degrees Processing costs have been developed by Mintrex based on the **Processing Cost** processing flowsheet and throughput parameters and include operating costs and general and admin costs. Mining dilution of 5% and mining recovery of 95% has been applied. Processing cost Withnell, Roe, Dromedary, Mt Berghaus deposits Oxide - \$20.13 Fresh - \$23.63 Wingina, Camel Amanda deposits Oxide - \$19.97 Fresh - \$26.05 Metallurgical Mintrex has reviewed the previous and existing metallurgical data and studies undertaken by previous operators and De Grey on the various deposits. · Assumptions were made on the smaller deposits which had only limited metallurgical data based on geology, oxidation, alteration and mineralisation style and assigned recovery and processing attributes as either of Withnell or Wingina style. No deleterious elements are known for the deposits. Previous heap leach mining has occurred at the Withnell and Camel Pit optimisations were undertaken by independent consultants Pit Optimisations Cube based on input data from Mintrex including costs for mining by10m bench with incremental costs with depth for both ore and waste, grade control, haulage, recoveries, rehabilitation provisions, pit dewatering and owner fixed costs • Pit optimisation shells were developed based on the mining and processing cost assumptions and then selected pit shells were chosen, with a production schedule developed based on the resources from the selected pit shells. Factors applied to shells to simulate design: Ore -2% of tonnes Waste +5% of tonnes Infrastructure The operation is located on crown pastoral leases and in the wellestablished mining region near Port Hedland The proposed new 1.0 million tonne throughput plant is to be located adjacent the existing heap leach stockpile on the granted Indee gold mining leases.



- Power is to be supplied on site by diesel generators
- An existing ROM pad remains and would be utilised in the new operation
- An existing mine camp is already operational however has been down sized to 25 man accommodation. This camp would need upgrading for the new operation to approximately 50-80 persons.
- · Residential personnel would be housed in Port Hedland.
- Offices and associated buildings will be required and located either at the camp or plant site.
- · A new tails storage facility would be required
- New haul roads will be required between the plant and all pits. The haul roads at Withnell and Camel would be re-used.
- Raw processing water will be required and is expected to be sourced from dewatering bores along the Mallina Shear zone within a 5km radius of the plant.
- Access to the main NW Coastal Highway is via a graded gravel road. The operation was to house personnel on a partially fly in fly out from an on-site camp facility and partially residential in Port Hedland basis.

Environmental

- Open pit mining and heap leach cyanide leaching has been previous approved on the granted Indee Gold mining leases. The operation has been rehabilitated and is on care and maintenance.
- At the time of previous mining environmental baseline studies were completed.
- The proposed mining areas will most likely require additional baseline studies prior to new approvals for mining and processing to recommence.
- The proposed new mining areas at Wingina, Mt Berghaus and Amanda deposits require new mining lease applications to be lodged and appropriate levels of baseline studies to be completed.
- The Company does not see any obvious detrimental environmental issues based on previous studies, however it must be noted further studies will be required and approved before mining can re-commence

Social

- Key stakeholders include the state of Western Australia government, local Port Hedland shire, Indee and Mallina pastoral lease owners and the Kariyarra aboriginal native title claimant group whose claim covers all the proposed mining areas.
- Pastoral lease access and compensation agreements are to be negotiated for the proposed mining operation.
- All the existing granted mining tenements on the Indee portion of the project are listed in a previously negotiated and signed mining agreement with the local Kariyarra aboriginal native title group. The other proposed new mining tenements would also fall within the Kariyarra aboriginal native title claim area and will need to be incorporated into this existing mining agreement or alternative agreement.