ECHO RESOURCES LTD

ASX ANNOUNCEMENT

Yandal Gold Project BFS & Growth Strategy

Highlights

- **Bankable Feasibility Study (BFS) confirms the redevelopment of the Yandal Gold Project as technically robust with strong financial metrics**
- **Key operating metrics of the BFS include:**
  - **Production of 378,874 oz over initial 4-year life of mine**
  - **Average annual gold production of 95,000 oz**
  - **LOM all-in sustaining cost (AISC) of A$1,095/oz[1&2]**
- **Financial highlights from the BFS[3] include:**
  - **Low pre-production capital of $42m**
  - **Pre-tax project free cashflow of $225m**
  - **Pre-tax NPV_8 of $172m and IRR of 198%**
- **Project now development ready having secured all major permits**
- **Board currently pursuing all options to maximise shareholder value ahead of any decision to mine including:**
  - **Advancing discussions regarding regional assets and corporate consolidation**
  - **Further investment in near term resource conversion and focused exploration to improve the production profile further and extend the mine life**

[1] *All figures are presented in nominal Australian Dollars unless otherwise specified, this applies to the entire document*
[2] *AISC includes cash cost (C1) plus royalties and sustaining capital but excludes exploration and corporate costs*
[3] *The Study is based on a A$1,800 gold price*

ASX ANNOUNCEMENT
23 April 2019

ASX CODE
EAR

KEY ASSETS
- Julius
- Orelia
- Bronzewing Hub

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BFS Outcomes

Echo Resources (ASX: EAR) (Echo or the Company) is pleased to announce the completion of the Bankable Feasibility Study (BFS or Study) for the Yandal Gold Project (Project).

The Study demonstrates that under conservative mining, processing and discount rate assumptions it will generate strong cash flows and robust returns on capital invested with competitive operating costs and minimal pre-production capital.

The Study is based on the refurbishment of Echo's 100% owned Bronzewing Processing Plant and substantial associated infrastructure. Ore will be sourced from the high margin Stage 1 open pits at Orelia and Julius for a 4-year mine life.

For conservatism, the additional 4 years of mine life from Stage 2 Ore Reserves, comprising 408,000 ounces have not been included in this BFS. These reserves will be optimised and augmented over time and may result in mine life extension.

The Independent Technical Expert (ITE), which was appointed to support the project financing process, has completed a review of the Study with no adverse material findings. The BFS is based on processing 6.9Mt of ore at an average grade of 1.86g/t Au for approximately 379,000oz (previously 6.5Mt at an average grade of 2.0g/t Au for 380,000oz).

The Project generates an undiscounted pre-tax, free cashflow of $225 million over an initial 4-year mine life at a A$1,800/oz gold price. Average annual gold production is 95,000oz and life of mine all-in sustaining costs (AISC) are estimated at A$1,095/oz.

The Project delivers a pre-tax NPV $_{(8\%)}$ of $172 million and internal rate of return (IRR) of 198%.

The pre-production capital estimate of $42 million includes development capital of $35 million, pre-production mining of $4 million and contingency of $3m during the 6-month development period until the first gold pour. Capital pay back is less than 12 months from first gold production.

All major permits required to commence development and mining have been received.

A summary of the key economic performance indicators from the BFS are contained in Table 1.

Refer to Appendix 1 for the Executive Summary of the BFS.

	Units	BFS		
Project Life	Years	**4.0**		
Total Ore (contained)[1]		6.9Mt @ 1.8 g/t Au for 411koz		
Gold Revenue				
Gold Price	A$/oz	**1,900**	**1,800**	**1,700**
Gold Sold	oz	378,874	**378,874**	378,874
Gold Revenue	**A$M**	720	**682**	644
Pre-Production Capital				
Development Capital[3]	A$M	38	**38**	38
Pre-Production Mining Costs[4]	A$M	4	**4**	4
Pre-Production Capital	**A$M**	42	**42**	42
Operating Costs				
Mining & Haulage	A$M	177	**177**	177
Processing	A$M	147	**147**	147
Site Administration	A$M	46	**46**	46
Royalties	A$M	42	**39**	37
Sustaining Capital	A$M	6	**6**	6
Project Free Cashflow Pre-tax	**A$M**	261	**225**	190
Pre-tax NPV 8%	**A$M**	201	**172**	143
Pre-tax IRR	**% p.a.**	249%	**198%**	154%
Payback Period[5]	**Years**	0.4	**0.4**	0.8
Production Cost Metrics				
Cash Cost (C1)[6]	A$/oz	977	**977**	977
All-In Sustaining Cost (AISC)[7]	**A$/oz**	1,101	**1,095**	1,090

Table 1 Project Key Economic Performance Indicators

Footnotes:
1. The Ore Reserves underpinning the above production target have been prepared by a Competent Person or Persons in accordance with the requirements of the JORC (2012) Code. Refer to JORC tables, Qualifications and Competent Persons Statements.
2. All figures are presented in nominal Australian dollars unless otherwise specified. All cashflows are quoted Pre-tax unless noted. This applies to the entire document.
3. Pre-development expenditure prior to March 2019 is excluded from pre-production capital.
4. Pre-production mining costs are calculated up to the month of the first gold pour.
5. Payback period is calculated from the month of first gold production.
6. Cash Cost (C1) includes all mining, haulage, processing and site administration costs.
7. AISC includes cash cost (C1) plus royalties and sustaining capital but excludes exploration and corporate costs.

Other notes:
The Company is estimated to have carried forward tax losses of $40 million at 30 June 2018, which have not been included.
Rounding errors may occur.

Project Funding

Based on the BFS and the final ITE Report, non-binding indicative debt financing proposals have been received from a range of resource lenders including tier 1 Australian and international institutions. These proposals range up to A$45 million and have the potential to cover the entire pre-production capital.

Echo is assessing these proposals and continues discussions with these groups.

Regional, Corporate and Asset Consolidation

The outcome of the BFS demonstrates the Yandal Gold Project is a high return, technically robust development project. The extensive existing production infrastructure and short development timeframe is expected to result in a low cost and low risk execution compared to the development of a greenfields site.

The current 4-year mine life of the Project is forecast to be highly profitable with competitive operating costs and strong cash generation. With several clearly identified, advanced projects and exploration targets within Echo's tenure, there is the potential to increase the yearly production significantly above 100,000oz per annum from multiple mines, extend mine life and create an even more profitable and sustainable business. This belt has yielded multi-million ounces of gold production yet remains substantially untested in many areas.

The Company is also advancing discussions regarding regional assets and corporate consolidation. These discussions are incomplete and preliminary in nature. No assurance can be given that any binding agreement will be reached in respect of these discussions. Concurrently the Company will continue with a major exploration initiative to further unlock the value from its underexplored tenement package and an ASX release will be made shortly focussed on exploration opportunities.

The Board is cognisant of the recent difficulties encountered by explorers transitioning to production over the past few years. The Board has been resolute in adopting a measured approach to ensure that a decision to mine is built on the strongest possible foundation and believes it is prudent to evaluate all options in order to increase value and mine life. The Board believes that the pursuit of corporate opportunities and focussed resource conversion and regional exploration will provide Echo with considerably greater return than immediately progressing to production.

Sternship Advisers has been appointed as a corporate adviser to assist the Board evaluate various options.

Management Comment

Commenting on the outcomes of the BFS and development strategy, Echo Managing Director Victor Rajasooriar said:

"The BFS highlights the profitability and rapid payback of the Project. We now have an advanced, development ready project which we expect to generate attractive returns for our shareholders.

The Board remains committed to overseeing a low-risk, measured transition to gold production at the Yandal Gold Project to ensure long-term shareholder value.

As such, a number of near-term activities are being pursued with the potential to further improve the Project's returns and continue to de-risk any decision to mine.

These activities include further investment in resource conversion and advanced exploration opportunities across Echo's 1,600km^2 tenement package. This package has already yielded 4 million ounces of gold production yet contains numerous highly prospective areas that have lacked systematic exploration.

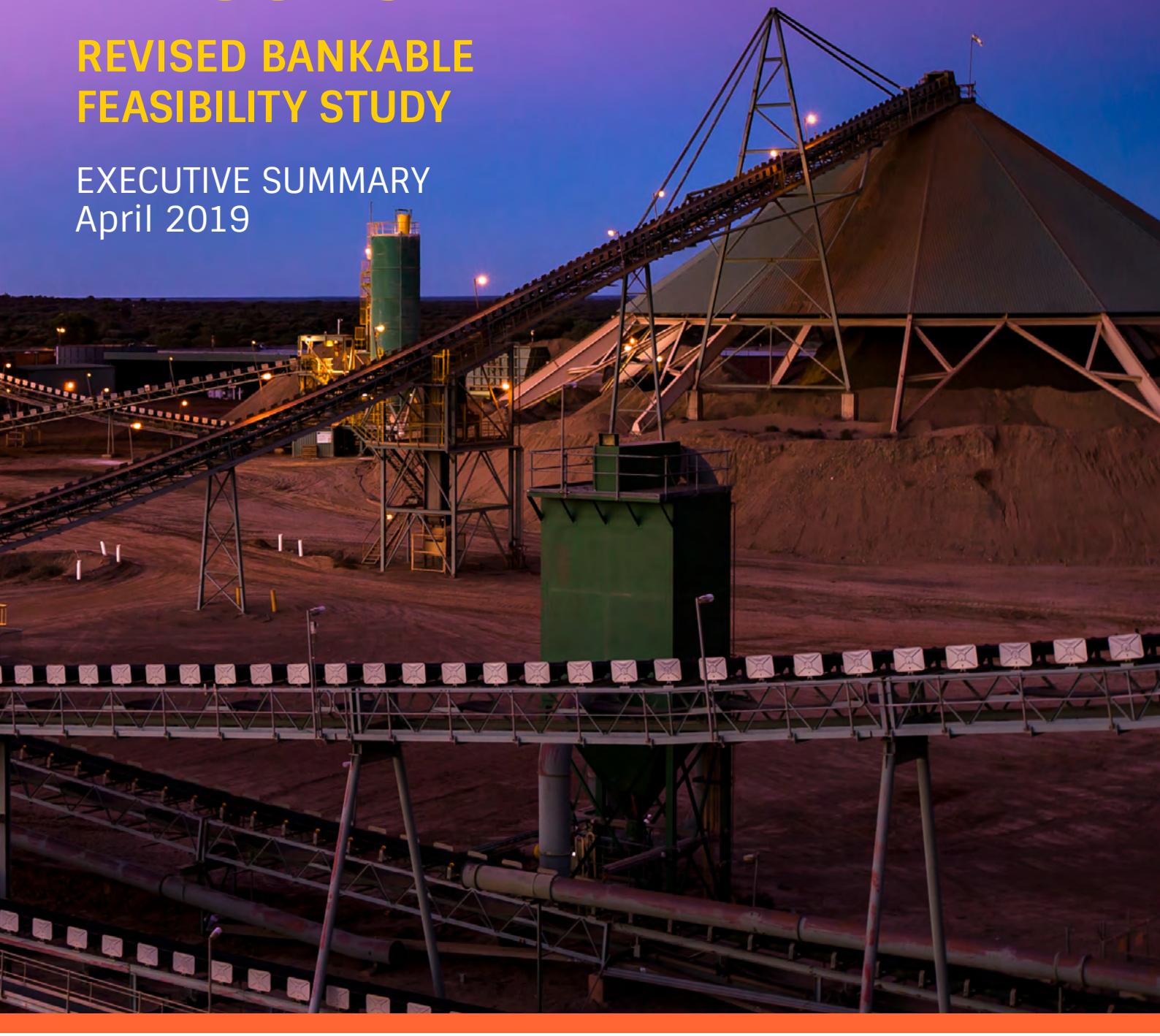
This exploration strategy, combined with discussions regarding regional asset and corporate consolidation, has the potential to create and expose our shareholders to a multi-mine business producing well in excess of 100,000oz per annum"

APPENDIX 1

YANDAL GOLD PROJECT

REVISED BANKABLE FEASIBILITY STUDY

EXECUTIVE SUMMARY
April 2019



ECHO RESOURCES LTD

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1. EXECUTIVE SUMMARY

1.1 PROJECT SUMMARY

Echo Resources Limited ('Echo') holds mining and exploration tenure over 1,600 km^2 of the highly prospective Yandal greenstone belt in Western Australia. Echo proposes to develop the Yandal Gold Project centred on the Bronzewing infrastructure located 83 km north-east of Leinster and 800 km north-east of Perth in Western Australia. The Project consists of the Bronzewing Treatment Plant and two open pit mines, comprising Julius located approximately 73 km north of the plant and Orelia 10 km to the south.

Ore mined from the Julius and Orelia mines will be transported and processed at the existing Bronzewing plant following refurbishment of the plant and associated infrastructure. Julius pit will be mined in a single stage and the Orelia pit will be mined in two stages (1A and 1B). The Stage 1A pit will deepen the floor of the existing pit to target higher grade, lower strip ratio ore. The Stage 1B pit will include a cutback to the west and north walls as well as deepening below the Stage 1A floor.

This Revised Bankable Feasibility Study (BFS) includes work completed since the August 2018 BFS was released. The key areas of focus for this work include:

- The Orelia orebody reserve model was revised to include additional allowances for ore loss and dilution.
- Mine stage designs were updated to bring ore forward in the schedule allowing waste to be deferred. Ramp design parameters were reviewed after consultation with the preferred mining contractor saving on waste stripping requirements.
- The mine schedule was redone excluding the August 2018 BFS Stage 2 cutbacks at Orelia and Julius in order to further de-risk the Revised BFS. The Stage 2 cutbacks are economically viable options but offer a lower rate of return than the Stage 1 pits.
- Additional comminution modelling was performed on various blends of oxide and fresh ore to confirm throughput parameters
- Capital and operating cost estimates were reviewed and updated. The plant refurbishment scope was revised to include additional work on the CIL tanks and tailings thickener.

Figure 1-1 Bronzewing Processing Plant

1.2 SUMMARY OF YANDAL GOLD PROJECT KEY PERFORMANCE INDICATORS (KPIS)

A summary of the key economic performance indicators is presented in Table 1-1 below.

Table 1-1 Project Key Economic Performance Indicators

	Units	Revised BFS				Original BFS[8]
Project Life	Years	4.0				3.75
Total Ore (contained)[1]		6.9Mt @ 1.8 g/t Au for 411koz				6.5Mt @ 2.0 g/t Au for 412koz
Gold Revenue						
Gold Price	A$/oz	**1,900**	**1,800**	**1,700**	**1,600**	**1,600**
Gold Sold	Oz	378,874	**378,874**	378,874	378,874	380,402
Gold Revenue	**A$M**	720	**682**	644	606	609
Pre-Production Capital						
Development Capital[3]	A$M	38	**38**	38	38	30
Pre-Production Mining Costs[4]	A$M	4	**4**	4	4	9
Pre-Production Capital	**A$M**	42	**42**	42	42	39
Operating Costs						
Mining & Haulage	A$M	177	**177**	177	177	172
Processing	A$M	147	**147**	147	147	131
Site Administration	A$M	46	**46**	46	46	41
Royalties	A$M	42	**39**	37	35	36
Sustaining Capital	A$M	6	**6**	6	6	4
Project Free Cashflow Pre-tax	**A$M**	**261**	**225**	190	154	**184**
Pre-tax NPV 8%	**A$M**	201	**172**	143	114	141
Pre-tax IRR	**% p.a.**	249%	**198%**	154%	115%	168%
Payback Period[5]	**Years.**	0.4	**0.4**	0.8	1.4	1.0
Production Cost Metrics						
Cash Cost (C1)[6]	A$/oz	977	**977**	977	977	936
All-In Sustaining Cost (AISC)[7]	**A$/oz**	**1,101**	**1,095**	**1,090**	**1,084**	**1,035**

1. The Ore Reserves underpinning the above production target have been prepared by a Competent Person or Persons in accordance with the requirements of the JORC (2012) Code. Refer to JORC tables, Qualifications and Competent Persons Statements.
2. All figures are presented in nominal Australian dollars unless otherwise specified. All cashflows are quoted Pre-tax unless noted. This applies to the entire document.
3. Pre-development expenditure prior to March 2019 is excluded from pre-production capital.
4. Pre-production mining costs are calculated up to the month of the first gold pour.
5. Payback period is calculated from the month of first gold production.
6. Cash Cost (C1) includes all mining, haulage, processing and site administration costs.
7. AISC includes cash cost (C1) plus royalties and sustaining capital but excludes exploration and corporate costs.
8. Includes only the Stage 1 pits of the August 2018 BFS
9. Echo is estimated to have carried forward tax losses of $40 million at 30 June 2018.
10. Rounding errors may occur.

1.3 STUDY OVERVIEW

The BFS proposes contract mining operations at the Julius and Orelia deposits with the ore transported by road trains to the existing Bronzewing plant for processing. The Bronzewing plant utilises a conventional comminution and carbon in leach (CIL) processing path and has a capacity of up to 2 million tonnes per annum (Mtpa) when processing a high oxide ratio blend. The current mine plan treats 6.9 Mt of ore at a grade of 1.8 g/t Au to produce 378,874 oz of gold over a four-year time period, averaging 1.73 Mtpa through the plant on a yearly basis.

The BFS has been compiled by Echo and supported by the following key independent consultants;

- Mintrex – Process Plant Refurbishment Study and Metallurgical and Engineering Overview;
- CSA Global – Database Management and Compilation;
- Nagrom – Julius Metallurgical Test work;
- ALS – Julius and Orelia Metallurgical Test work;
- Bureau Veritas Minerals – Orelia Ore Gold Test work;
- OMC – Comminution and Throughput Modelling;
- Coffey – Bronzewing Tailings Storage Facility Audit and Management Review;
- Groundwater Resource Management – Julius Hydrology and Hydrogeology;
- Strategic Water Management – Orelia Hydrogeology Review;
- Hydrogeologia – Updated Julius and Orelia Surface Water Review;
- Botanica Consulting – Environmental Surveys, Permitting, Mining Proposal and Mine Closure Plan;
- Botanica Consulting – Waste Rock Classification;
- Peter O'Bryan & Associates – Orelia Geotechnical Assessment;
- Tim Green and Associates – Julius Geotechnical Assessment;
- Widenbar & Associates – Julius and Orelia Resource Estimation;
- SCME – Mine Planning and Optimisation, Ore Reserve Statement;
- PCF Capital – Financial Modelling.

The existing Bronzewing infrastructure facilities include an unsealed airstrip suitable for propeller aircraft, with Bronzewing located approximately 1.5 hours flying time from Perth and 4 hours drive north of Kalgoorlie, Western Australia. The infrastructure in place also includes administration, workshop and stores buildings, power station buildings, electricity distribution network, and a 240-man accommodation village.

The infrastructure is in good condition and has been managed under a care and maintenance regime since previous site operations ceased in 2013.

The major phases of the proposed project development involve the refurbishment and commissioning of the Bronzewing plant, development of the Julius site facilities, re-establishment of mining at Orelia, and the construction of a 40 kilometre private haul road for transport of the Julius ore to join an upgraded section of Barwidgee Road which connects with the Bronzewing facilities.

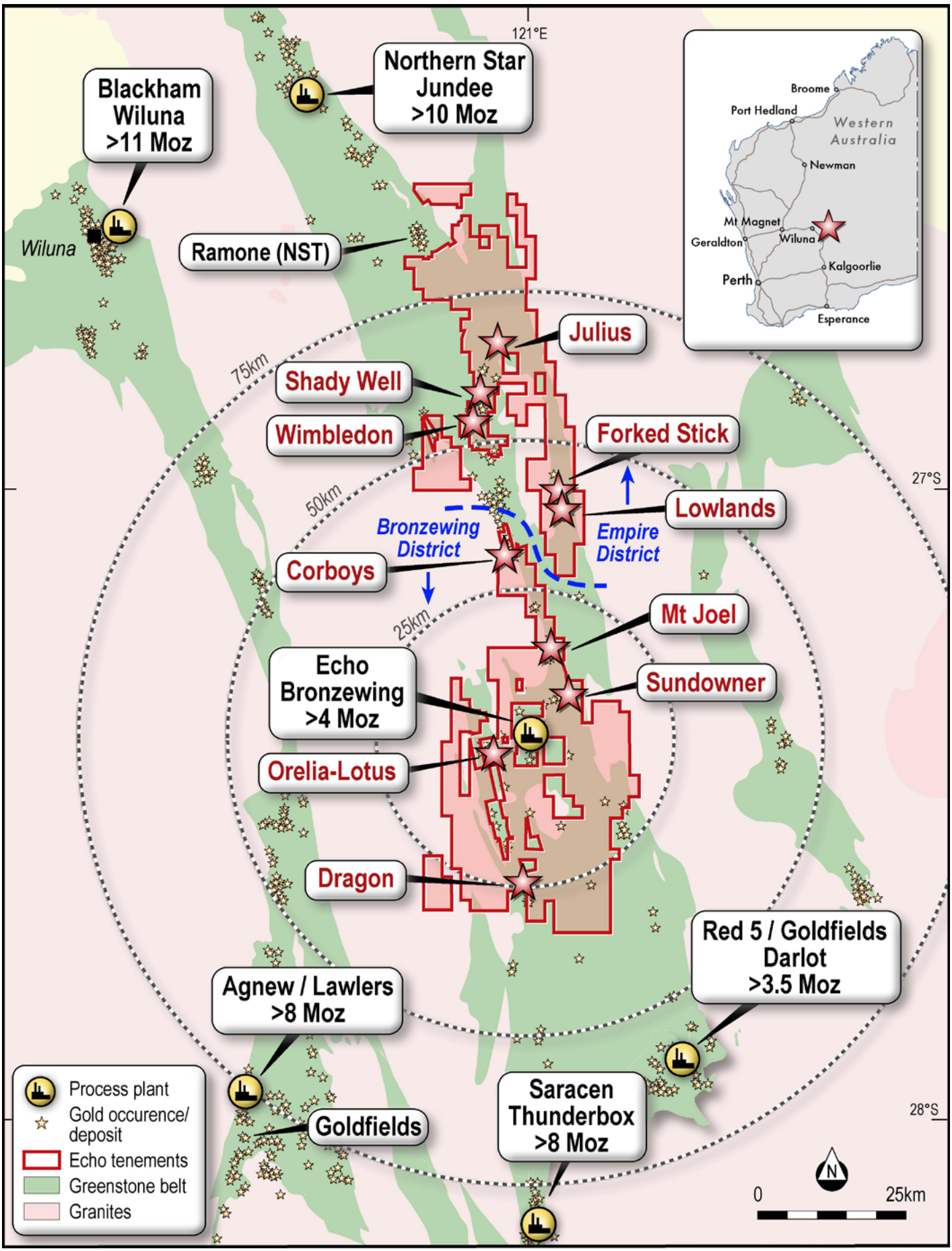


Figure 1-2 Project Location

1.4 TENURE AND APPROVALS

The Julius Gold Deposit is located on granted mining lease M53/1099 and the Orelia Gold Deposit is located on granted mining leases M36/146 and M36/200. The Bronzewing facilities are situated on M36/263.

Echo submitted Project Management Plans (PMP) for its Yandal Gold Project to the Department of Mines, Industry Regulation and Safety (DMIRS) in May 2018. The PMPs were approved in June 2018.

Echo submitted an Environmental Licence Amendment Application to the Department of Water and Environmental Regulation (DWER) in April 2018. This application will return the Bronzewing prescribed premise categories to an operational status. All water abstraction licences required are in place for operation.

1.4.1 Julius

A mining proposal, mine closure plan and clearing permit for Julius were approved by the DMIRS on 27 June 2017. Subsequent to this, an application to amend the Julius mining proposal to facilitate construction of a private haul road on the granted miscellaneous lease L53/206 was lodged. This amendment to the Julius Mining Proposal was approved in March 2018. A revised mining proposal to incorporate a change to the location of the waste dump and an updated pit design was lodged with the DMIRS in June 2018 and was approved in September 2018.

A native title access agreement was negotiated and signed with Tarlka Matuwa Piarku (Aboriginal Corporation) RNTBC on behalf of the Wiluna Native Title Holders and a State Deed executed allowing access to the site. Ethnographic and archaeological surveys were also conducted on the haul road route in December 2017 to ensure compliance by Echo under the Aboriginal Heritage Act 1972 (WA).

Discussions with the Wiluna Shire Council have taken place with regard to connection from Echo's private haul road on L53/206 to a 40 kilometre section of the Barwidgee Road into the Bronzewing Plant. A Road Access Agreement has been prepared and is currently being negotiated. An application for approval for use of the public Barwidgee Road for restricted access vehicles (RAV10) has been submitted to Main Roads Western Australia (MRWA) with approval expected in Q2 2019.

1.4.2 Orelia

Mining was previously conducted at Orelia under a View Resources Mining Proposal – Bronzewing Mt McClure Gold Project in September 2006 for Cockburn and Cockburn North cutbacks M36/146. An amendment to this Mining Proposal was lodged by Navigator Resources in June 2011, with approval received in September 2011.

The Mining Proposal has been updated and was submitted to DMIRS in June 2018. This Mining Proposal was approved by the DMIRS on 19 February 2019.

1.5 GEOLOGY AND RESOURCES

1.5.1 Julius

The Julius Gold Deposit is located midway between the multi-million ounce Jundee and Bronzewing gold camps. Julius is situated underneath a minimum of eight metres of transported cover and located on the margin of a strongly sheared shallow north-west dipping granite greenstone contact. The deposit is deeply weathered up to 60 - 70 metres and comprises three zones of mineralisation.

These zones are an upper pisolitic laterite mineralised zone, sitting on top of a well-developed supergene gold zone, grading down into primary mineralisation characterised by strong shearing, sericite alteration, silicification, minor quartz veining and minor enrichment in sulphides, principally pyrite.

Extensive reverse circulation (RC), aircore (AC) and diamond drilling has defined the current extents of the deposit. Drill spacing ranges from 40 metres x 40 metres on the peripheries of the deposit, to 10 metres x 10 metres in the centre of the deposit. As part of this Revised Bankable Feasibility Study, Echo drilled a total of 141 AC holes for 6,286 metres, 53 reverse circulation (RC) holes for 5,113 metres and nine HQ triple tube diamond drill holes for 481 metres at Julius.

Nine individual wireframes, at a nominal 0.8 g/t Au, have been interpreted and constructed, followed by data subset and analysis, variography, determination of top cuts and finally interpolation via Ordinary Kriging. Widenbar & Associates completed this work which has resulted in the following Mineral Resource Estimate.

Table 1-2 Julius Mineral Resource Estimate (JORC 2012) 0.8 g/t Cut-off

Total Resource (OK) 0.8 gm/t Cut-off					
Resource Category	**Volume**	**Tonnes**	**BD**	**Au Cut**	**Au Ounces**
Measured	753,315	1,834,365	2.44	2.1	121,140
Indicated	724,568	1,805,778	2.49	1.3	77,313
Measured + Indicated	1,477,883	3,640,143	2.46	1.7	198,453
Inferred	591,798	1,538,675	2.60	2.0	96,743
Total	**2,069,681**	**5,178,818**	**2.50**	**1.8**	**295,196**

This model was re-blocked to form a mining model taking into account mining dilution and ore loss. This model was used in pit optimisations using the cut gold grades which ranged from an upper cut of 10 g/t Au to 40 g/t Au depending on the statistical distribution of the gold grades within the individual mineralised zones.

Table 1-3 Julius Mineral Resource Estimate (JORC 2012) Mining Model Cut grade 0.8 g/t Cut-off

Total Resource (OK) 0.8 gm/t Cut-off Mine Model					
Resource Category	**Volume**	**Tonnes**	**BD**	**Au Cut**	**Au Ounces**
Measured	671,125	1,620,104	2.41	2.0	104,570
Indicated	611,219	1,522,291	2.49	1.3	63,048
Measured + Indicated	1,282,343	3,142,395	2.45	1.7	167,617
Inferred	503,344	1,308,694	2.59	2.0	81,915
Total	**1,785,688**	**4,451,089**	**2.49**	**1.7**	**249,532**

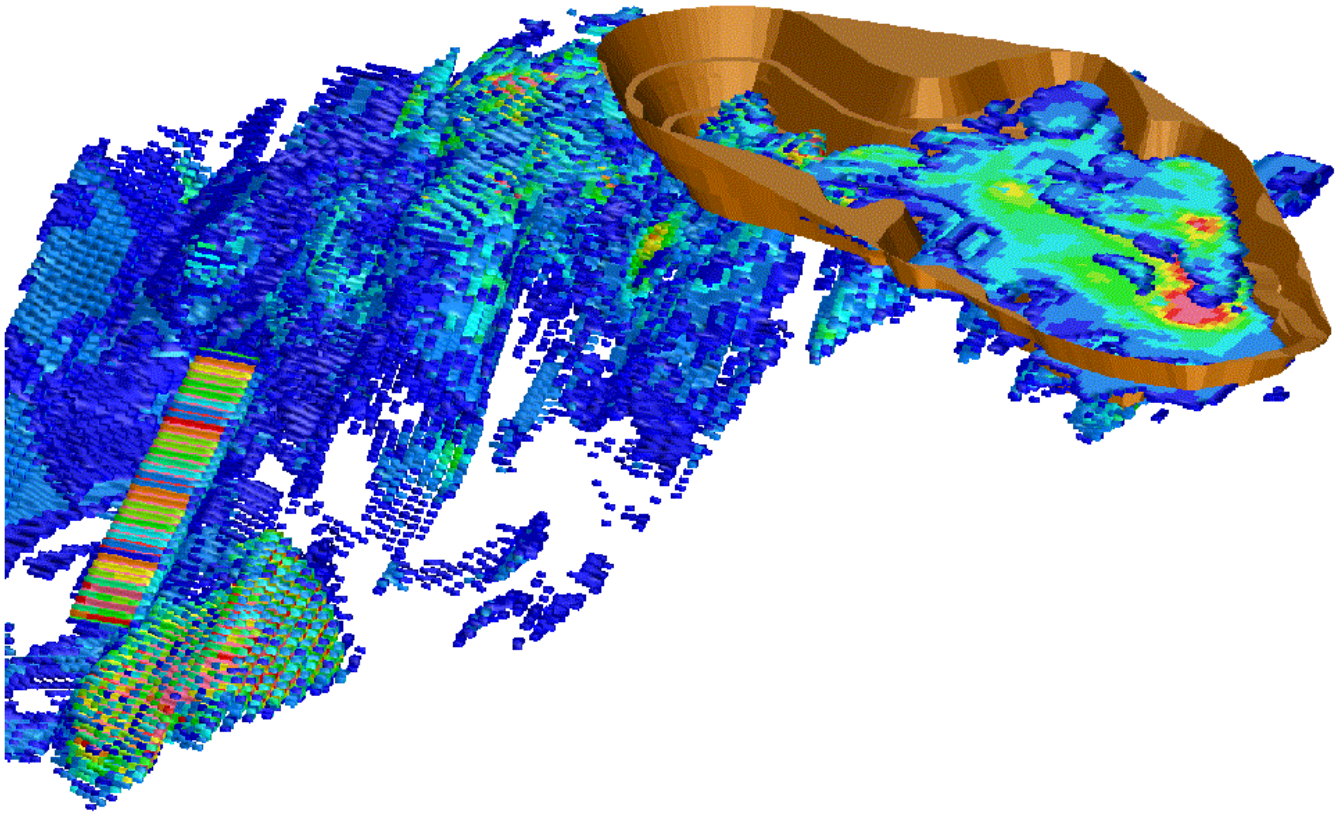


Figure 1-3 Julius Gold Deposit 3D Orthogonal Image (looking North East)

1.5.2 Orelia

The Orelia gold deposit (the Orelia, Calista and Cumberland shear zones) has been previously mined by three companies (Arimco, View and Navigator Resources) during three different mining campaigns since 1992. The existing Orelia open pit has been mined to a vertical depth of approximately 100 metres below natural surface. It was last mined and processed through the Bronzewing treatment plant in April 2013.

The main host rocks of mineralisation at Orelia are deformed and altered tholeiitic basalts, concordant dolerite units and felsic to intermediate sedimentary rocks. Cross-cutting felsic to intermediate porphyry dykes intrude the stratigraphy along pre-existing structures. Gold mineralisation typically occurs as southerly plunging ore-shoots at the intersection between steeply-dipping transgressive faults and favourable lithological units, along fold hinges and on lithological contacts.

The deposit was extensively drilled by previous owners including Arimco Mining Pty Ltd, Great Central Mines Ltd, Normandy Mining Ltd, Newmont Mining Corporation and View Resources Limited between 1992-2004. A total of 1,458 drill holes for 233,091 m were drilled.

Measured material is generally confined to areas drilled on a 10 m x 10 m spacing and Indicated on 25 m x 25 m or closer.

Of this drilling, 426 diamond holes for 120,926 m were drilled in the deposit on a nominal 20 m x 20 m grid pattern resulting in a large percentage of the Mineral Resource Estimate being classified as Indicated.

Since gaining ownership of the deposit Echo has undertaken the following infill drilling programs:

- 26 Reverse Circulation (RC) holes for 2,597 metres; and
- 26 NQ (75 mm) diamond holes for 4,091 metres.

The latest Mineral Resource Estimate incorporates all the historical diamond drilling within the Mineral Resource Estimate area, supplemented by Echo's recent detailed RC and diamond drilling conducted from the floor of the open pit. That drilling returned many significant intersections validating and confirming the interpretation and grades from the historical drilling.

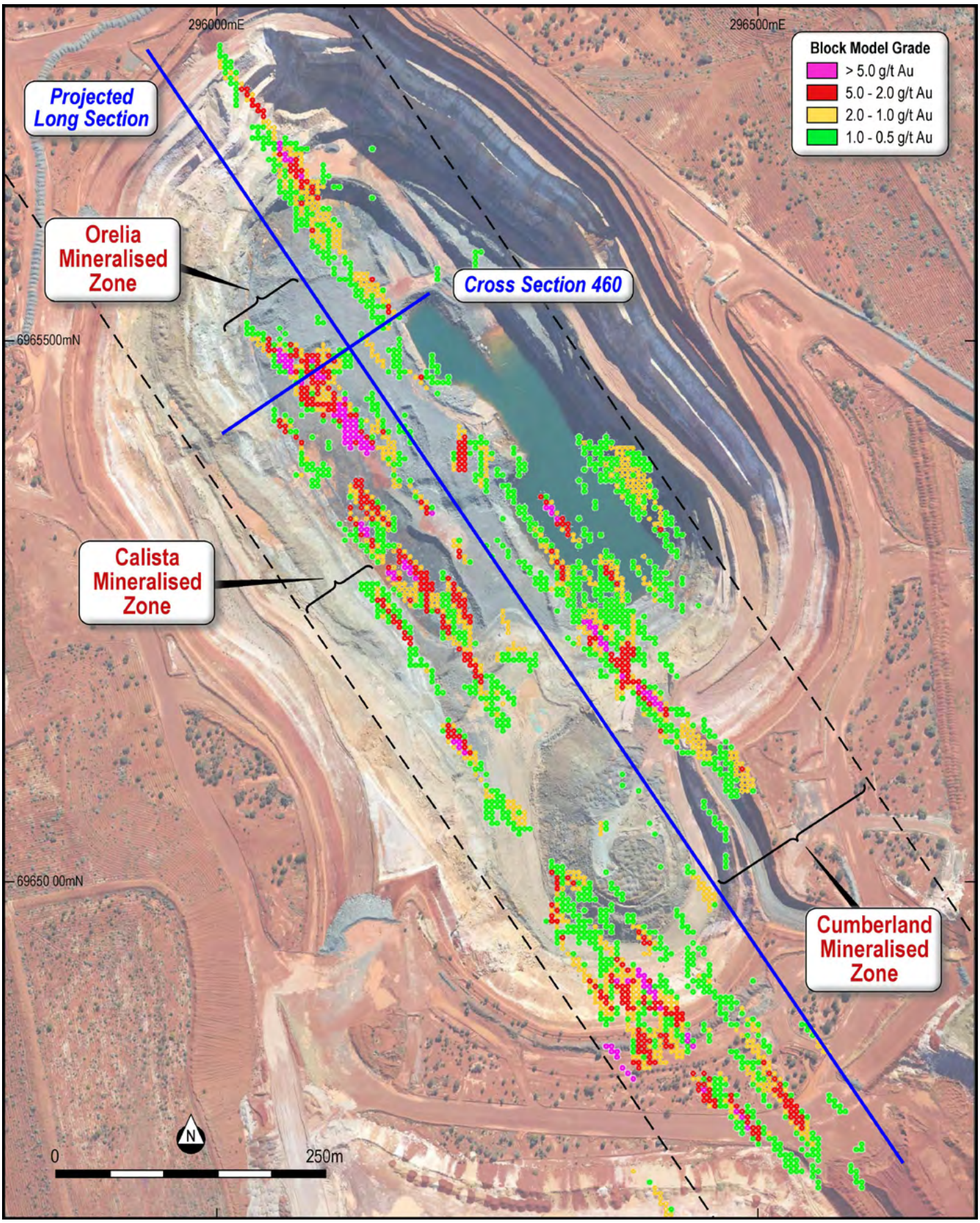


Figure 1-4 Orelia Plan (350 mRL) View with Mineral Resource Estimate Block Model

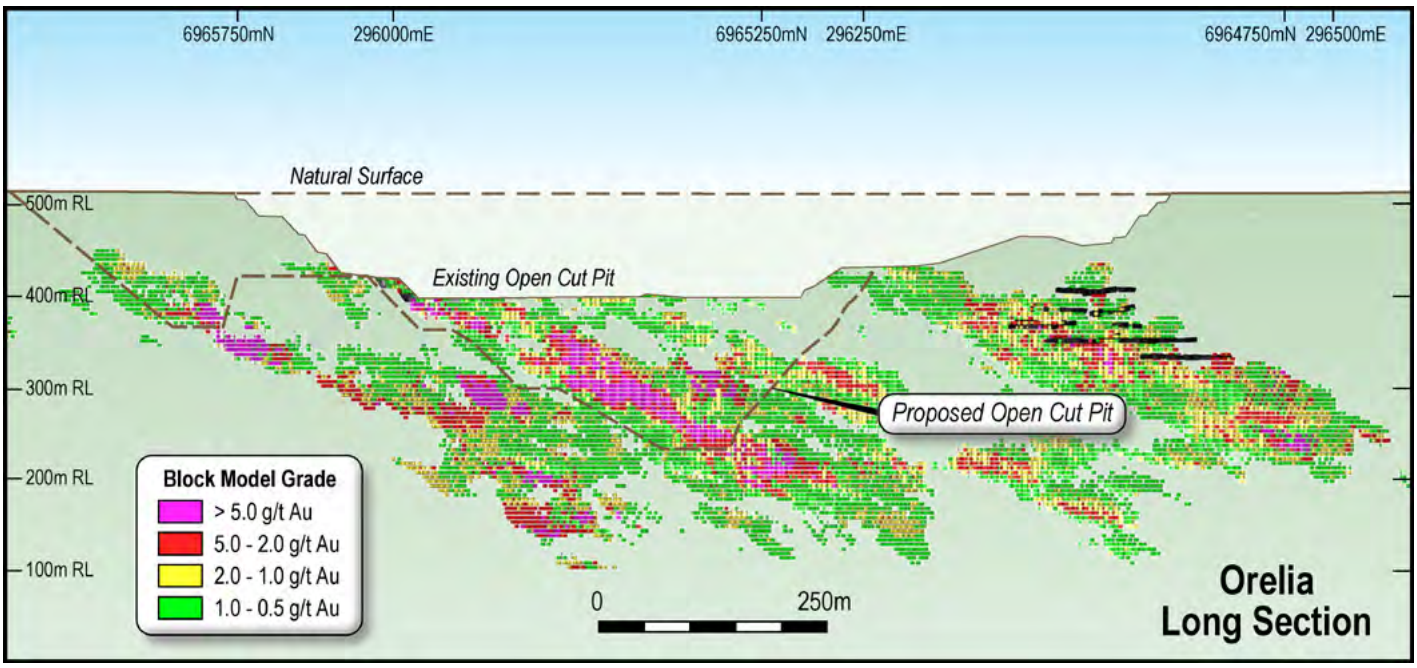


Figure 1-5 Orelia (Cumberland and Calista) Projected Long Section with Block Model

The deposit has several shallow trending high grade gold shoots with dimensions of approximately 50 m in vertical extent and 25 m in width, and down plunge extent in excess of 400 m. Confidence in the geological interpretation is good with the latest infill drilling allowing a detailed interpretation of the distribution of the Orelia gold mineralisation.

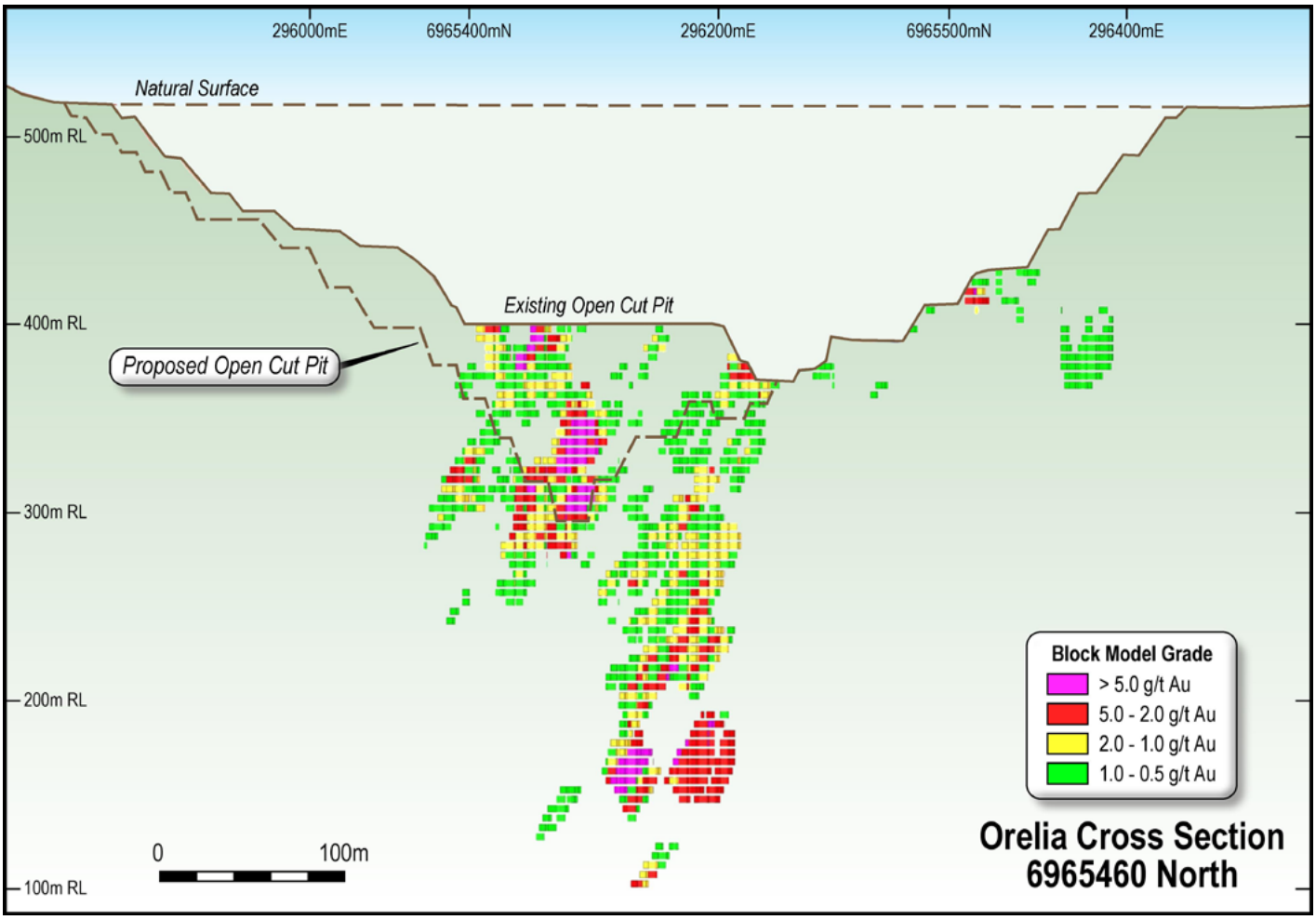


Figure 1-6 Orelia Cross Section with Mineral Resources Estimate Block Model (6965460N)

Geological logging and interpretation allow extrapolation of drill intersections between adjacent sections, and boundaries are determined by the spatial locations of the various mineralised structures. The model utilised to estimate the Mineral Resource Estimate (MRE) confines mineralisation to individual wireframes with oxide, transition and fresh material individually assessed with oxidation profiles established and assigned into the block model.

The MRE was completed by Widenbar & Associates in June 2018 utilising all drilling results and Ordinary Kriging grade interpolation techniques. The Orelia MRE has been classified in the Measured, Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resource Estimates and Ore Reserves (JORC 2012).

The Mineral Resource Estimate at Orelia is summarised below at a range of cut-offs.

Table 1-4 Orelia Gold Project Mineral Resource Estimate 1 g/t Au Cut-off

			Cut	
JORC (2012) Category	**Cut-off** (g/t Au)	**Tonnes** (Mt)	**Grade** (g/t Au)	**Ounces** (koz Au)
Measured	1.0	2.8	2.6	237
Indicated	1.0	11.2	2.0	732
Measured + Indicated	**1.0**	**14.0**	**2.2**	**969**
Inferred	1.0	1.9	1.7	101
Total Mineral Resource	**1.0**	**15.9**	**2.1**	**1,070**

Note: Rounding Errors may occur

Table 1-5 Orelia Gold Project Mineral Resource Estimate 0.8 g/t Au Cut-off

			Cut	
JORC (2012) Category	**Cut-off** (g/t Au)	**Tonnes** (Mt)	**Grade** (g/t Au)	**Ounces** (koz Au)
Measured	0.8	3.4	2.3	253
Indicated	0.8	15.0	1.7	840
Measured + Indicated	**0.8**	**18.4**	**1.9**	**1,093**
Inferred	0.8	2.7	1.4	126
Total Mineral Resource	**0.8**	**21.1**	**1.8**	**1,219**

Note: Rounding Errors may occur

Table 1-6 Orelia Gold Project Mineral Resource Estimate 0.5 g/t Au Cut-off

			Cut	
JORC (2012) Category	**Cut-off** (g/t Au)	**Tonnes** (Mt)	**Grade** (g/t Au)	**Ounces** (koz Au)
Measured	0.5	4.7	1.9	279
Indicated	0.5	25.4	1.3	1,051
Measured + Indicated	**0.5**	**30.0**	**1.4**	**1,330**
Inferred	0.5	4.7	1.1	165
Total Mineral Resource	**0.5**	**34.7**	**1.3**	**1,495**

Note: Rounding Errors may occur

1.6 MINING

1.6.1 Introduction

All the currently defined Mineral Resource Estimates at the Yandal Gold Project are within an open pit mining environment and are a lode style of mineralisation requiring a degree of mining selectivity. The material to be excavated will be predominantly free dig from surface with blasting required deeper in the oxidation profile and into the fresh ore zones. Given these conditions, conventional open pit mining techniques using drill and blast with material movement by hydraulic excavator and trucks will be employed.

It is proposed that mining activities will be undertaken by an experienced contractor with Echo retaining responsibility for technical services comprising mine planning, production scheduling, grade control, surveying and supervision and management of contract mining operations.

Ore Reserves for the Julius and Orelia deposits were previously estimated in November 2017. The Reserves detailed in this report have been updated in November 2018 based upon updated pit designs and costs. The revised pit designs include modifications to the Stage 1 pits from the previous BFS and do not include the Stage 2 pit designs.

The Ore Reserves are based on the updated Mineral Resource estimate models estimated and reported by Widenbar & Associates for the Julius Gold Deposit in September 2018 and the Orelia Gold Deposit in June 2018.

To enable the Julius Mineral Resource Estimate model to be utilised for pit optimisation it was first regularised to a selective mining unit (SMU) of 5 m along strike (north-south), 2.5 m across strike (east-west) and 2.5 m vertical applicable to the proposed fleet size and mining methodology. The regularisation of the block model results in diluted grades as weighted average gold grades are calculated for the blocks. Ore losses will occur where a block contains a proportion of mineralised material and the resultant weighted average block grade falls below the cut-off grade.

The Orelia Mineral Resource Estimate model was estimated within a broad envelope at a 0.2 g/t Au cut-off. As such, there are no hard boundaries or sub-blocking at the higher-grade cut-offs likely to be used for mining selectivity and the blocks can thus be considered to include a degree of dilution and ore loss, as all blocks inside the envelope are allowed to “see” both high and low-grade data points. Further to this a dilution factor of 7.6% on ore tonnes was applied to the Orelia ore through the mine planning software. This factor was a result of the variance between the original model and the model with applied waste skin, which was created to account for dilution that may occur during drill and blast and mining practises.

1.6.2 Mining Assumptions

1.6.2.1 Geotechnical

A geotechnical feasibility assessment of open pit mining at the Julius Prospect was carried out by Green Geotechnical Pty Ltd in November 2016. The assessment provides base case wall design parameters for open pit mining evaluation, included in Table 1-7.

Table 1-7 Julius Recommended Pit Slopes

Wall	Rock Type	Slope	Maximum Dip	Comments
North (→210)	Weathered Ultramafic	Overall	50°	Limited by potential for circular, planar and wedge failure
		Batter	55°	Limited by potential for wedge failure
South (→030)	Weathered Ultramafic	Overall	50°	Limited by potential for circular failure
		Batter	65°	
East (→300)	Weathered Granodiorite	Overall	50°	Limited by potential for wedge failure
		Batter	55°	Limited by IRSA and location of ramp (increased potential for wedge sliding due to dominant joint sets in granodiorite)
West (→120)	Weather Ultramafic	Overall	50°	Limited by potential for circular failure
		Batter	65°	

A number of geotechnical evaluations of the Orelia pit were carried out by Peter O'Bryan & Associates during previous operational phases. Peter O'Bryan & Associates have reviewed all available information and provided updated wall design parameters which are shown in Table 1-8.

Table 1-8 Orelia Recommended Pit Slopes

Level	Wall Design Parameters	
Bench Face Height	Surface to 440mRL	10m
	440mRL to Pit Floor	20m
Bench Face Angles	Surface to 400mRL	65°
	400mRL to Pit Floor	75°
Berm Widths	510mRL to 450mRL	5m
	At 440mRL	10m
	At 420mRL and every 20m below	7m
	Geotechnical berm every ~80m vertical that does not include a ramp pass	15m

1.6.2.2 Drill and Blast

Three different competencies of rock will be mined; oxidised, transitional or weakly oxidised, and fresh rock types.

Blasts will be engineered to ensure minimum displacement of the ore to minimise dilution and ore loss. Drilling will be carried out by top hammer rigs with blast hole diameters from 102 mm to 127 mm being utilised for drill and blast requirements.

Based on the previous production records from the Orelia Gold Deposit average powder factors were applied in the drill and blast evaluation for the various rock competencies. It was assumed that 100% of the laterite and fresh material would require blasting, with only 30% of the oxide requiring blasting.

For the Julius Gold Deposit powder factors based on the geotechnical logging were used with appropriate allowance for the specific characteristics of the laterite, clay and fresh rock. It was assumed that 100% of the laterite and fresh material would require blasting, with 30% of the oxide at Julius requiring blasting.

1.6.2.3 Load and Haul and Ancillary Equipment

Load and haul will be carried out by 1 x 120 t and 1 x 200 t class excavators matched with a 95 t class truck fleet. The 200 t class excavator will be used for mining bulk waste and bulk ore (lateritic zones) with the smaller 120 t class machines used for ore production in shear hosted ore zones. An ancillary fleet of bulldozers, graders, water truck and lighting plants to match the production schedule and fleet has also been selected.

1.6.2.4 Grade Control

The location, shape and grade of each ore zone on each bench will be confirmed based on a grade control process.

Prior to mining commencing on a bench each ore zone will be drilled on a nominal 8 m x 6 m grid aligned to the major axis of the mineralisation and with holes inclined to target true widths of the mineralisation as much as possible.

RC drilling will be used with samples collected each metre.

Samples will be split and sent to an off-site laboratory for analysis by fire assay for gold and, if necessary, silver and any deleterious metals.

Through the mine life the most cost effective grade control pattern will be reviewed and adjusted if necessary.

External geological consultants will be utilised to conduct all resource/ grade control modelling of the drill data to formulate the grade control models. From these a geostatistical grade interpolation program, such as GCX, will be used to design ore blocks.

1.6.2.5 Pit Dewatering

A hydrogeological assessment of the Julius Prospect was undertaken by Groundwater Resource Management. It is estimated that the pit inflows will peak at 10 l/s at the base of the pit. Water within the pit will be managed by sumps and mobile diesel pumps with capacity to pump 10 l/s. Allowance has been made for pumps of greater capacity to be utilised within the pit to cater for greater pit inflows if encountered. The mining contractor will be responsible for all dewatering activities within the pit with Echo being responsible for all required infrastructure from the pit crest to a Turkeys Nest to be constructed to the north-west of the pit. This will then be utilised for dust suppression within the mining area and on the Julius haul road.

Numerous previous hydrogeological assessments have been made of the Orelia (Cockburn) and nearby Lotus deposits. Aquaterra (2002) calculated that inflow into the open pit will be approximately 10 l/s. Navigator Resources while operating at Orelia (Cockburn) had no issues with dewatering of the pit and it is noted that Newmont in 2002 mined the nearby Lotus deposit via underground methods to approximately 500 metres below natural surface.

The Orelia pit currently has approximately 520 kL of water in the base of the pit which will need to be removed prior to mining commencing. Resource Water Group have completed studies on this and have estimated a 90 day dewatering program to pump the water to Lotus pit.

Pit dewatering at Orelia will also be managed by in pit sumps and trailer mounted diesel pumps. Historical mining records and a desktop hydrogeological assessment by Strategic Water Management indicate a pumping capacity of 10 l/s will be sufficient to keep the pit dewatered. The mining contractor will be responsible for all dewatering activities within the pit with Echo being responsible for all infrastructure required from the crest of Orelia to Lotus North pit where the water will be discharged and will then be utilised for dust suppression as well as process water at the Bronzewing Mill. All required pipe lines are currently in place and will be pump tested as part of the capital expenditure for the initial dewatering of the Orelia pit.

1.6.2.6 Pit Optmisation

Pit optimisation was carried out using industry standard methodology with Whittle 4X™ software on the Mineral Resource Estimate models as described in previous sections.

1.6.2.7 Geotechnical Parameters

The pit slopes used in the optimisations were based on the geotechnical recommendations with an additional allowance for inclusion of pit wall ramps.

1.6.2.8 Optimisation Inputs

Mining costs were sourced from the mining tender process conducted during 2018. Tendered costs for Excavate Load and Haul, Rehabilitation, Dayworks and Management Fees were applied to the mining benches for Orelia and Julius.

Table 1-9 below summarises the costs utilised for each pit within the optimisation process.

Table 1-9 Summary Mining Costs used in optimisation runs

Contract Mining Costs	$/BCM Min	$/BCM Max
Julius ELH	$3.56	$7.88
Julius Rehab	$0.20	$0.20
Julius Dayworks	$0.10	$0.10
Julius Monthly Management Fee	$0.90	$0.90
Julius Total	**$4.76**	**$9.08**
Orelia ELH	$3.49	$9.19
Orelia Rehab	$0.20	$0.20
Orelia Dayworks	$0.10	$0.10
Orelia Monthly Management Fee	$0.90	$0.90
Orelia Total	**$4.69**	**$10.39**

A base case gold price of $1,600 /oz was used for the optimisation. Royalties of 4.5% and a refining charge of $3.00 /oz were applied.

Other costs included in the pit optimisation are summarised in Table 1-10, which were the estimated input costs at the time of the pit optimisation.

Table 1-10 Costs for Pit Optimisation

Costs Assumptions for Pit Optimisation	$/Tonne of Ore
Grade Control	$1.00
De-Watering	$0.25
Crusher Feed	$0.70
Drill and Blast	$0.34/ bcm Oxide
	$1.12 / bcm Transitional
	$2.16 / bcm Fresh
Julius Haulage	$12.75
Orelia Haulage	$2.04
Processing Cost	$19.17
G & A Cost	$4.5 M per annum

The parameters result in a break-even non-mining cut-off grade of approximately 0.8 g/t Au for Julius and 0.6 g/t Au for Orelia.

1.6.2.9 Optimisation Results

Whittle 4X™ software was used to determine the optimum shell upon which the pit design was based.

In order to produce a range of 'nested' pit shells the optimisations were run over a wide range of gold prices from $800 /oz to a maximum of $2,000 /oz. A gold price of $1,600 /oz was used to analyse the cashflow produced by the pit shells.

For Orelia pit the shell with the greatest discounted worst-case cash flow was chosen as the optimum pit due to the limited opportunity to mine this pit in a number of stages.

The Julius pit optimisation results show a step change in pit size with little additional value close to shell with the greatest discounted cashflow. For design purposes the smaller shell which captured close to the maximum discounted cashflow was selected.

1.6.3 Pit Designs and Schedule

Final designs were prepared for each deposit to enable practical and efficient access to each bench. The designs were based on the selected optimised shells and prepared using the following design criteria as recommended in the reports prepared by Peter O'Bryan & Associates in June 2018. The slope design parameters are shown in Tables 1-7 and 1-8

Ramp design parameters incorporated in the design are as follows:

Orelia:

- 22 m wide dual lane ramps at a maximum gradient of 1 in 9 for ramps designed above the bottom 60 vertical metres of the pit base
- 12.5 m wide single lane ramps at a maximum gradient of 1 in 8 for the last 60 vertical metres at the base of the pit
- Minimum mining widths of 20 m

Julius:

- 12.5 m wide single lane ramps at a maximum gradient of 1 in 9 was used for the pit design
- Minimum mining width of 20 m

1.6.3.1 Julius Mine Design

The Julius pit will be mined in a single stage. The final pit for Julius is 550 metres long by approximately 200 metres wide. It has a depth 62.5 metres at its deepest point.

The Julius site layout with surface infrastructure is shown in Figure 1-7 below and pit design in Figure 1-8.

The waste rock dump has been placed directly to the south of the pit, mineralisation does not continue along strike to the south. The dump has been designed with a single 15 m high lift with final batter angles of 18°.

A run of mine (ROM) ore stockpile area has been placed directly east of the pit exit. The ROM stockpile has an area of 13.5ha. The workshop, laydown area and offices are to the south-east of the stockpile area. A camp will be established at the south eastern corner of the mining lease.

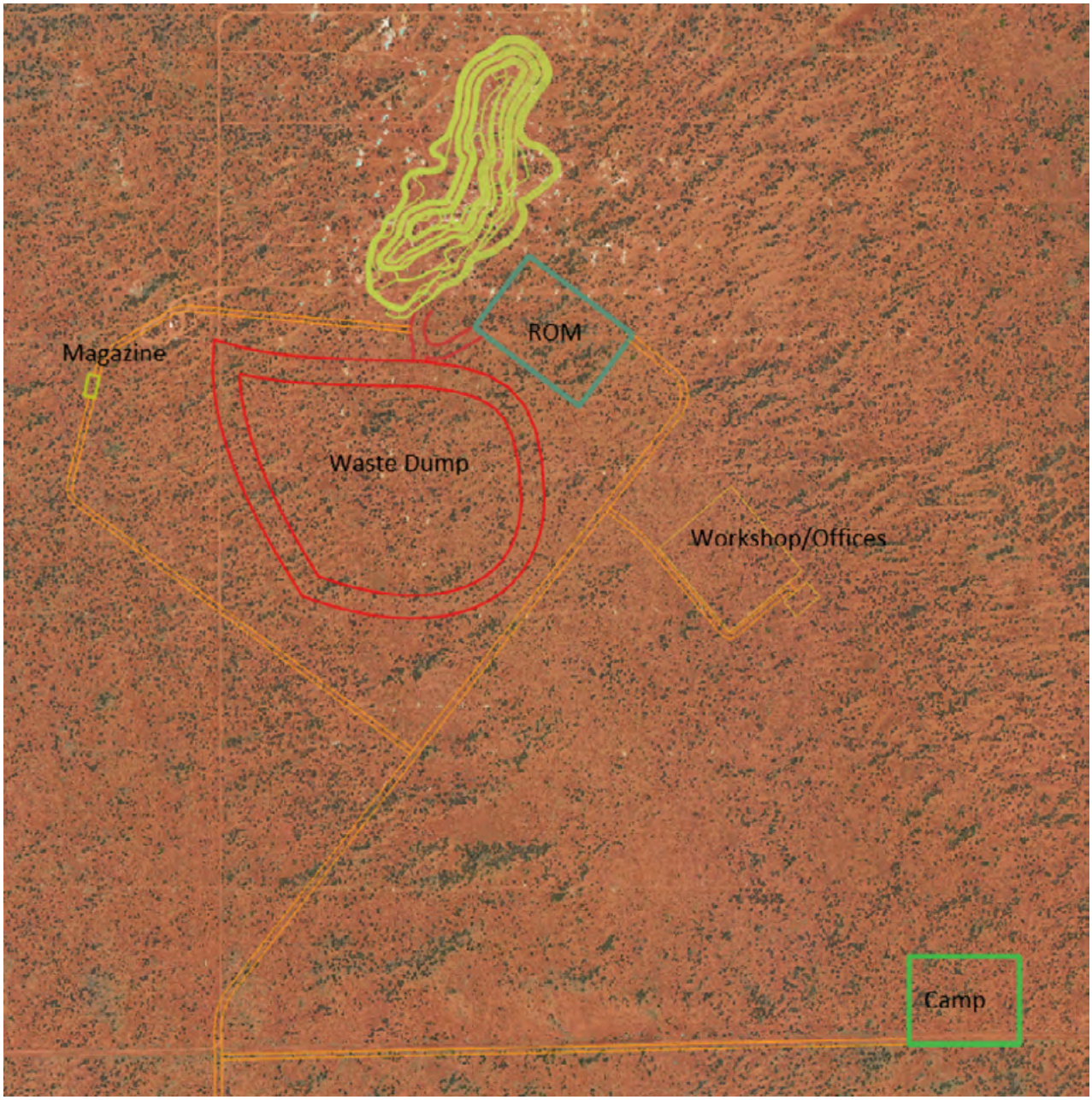


Figure 1-7 Julius Site Layout

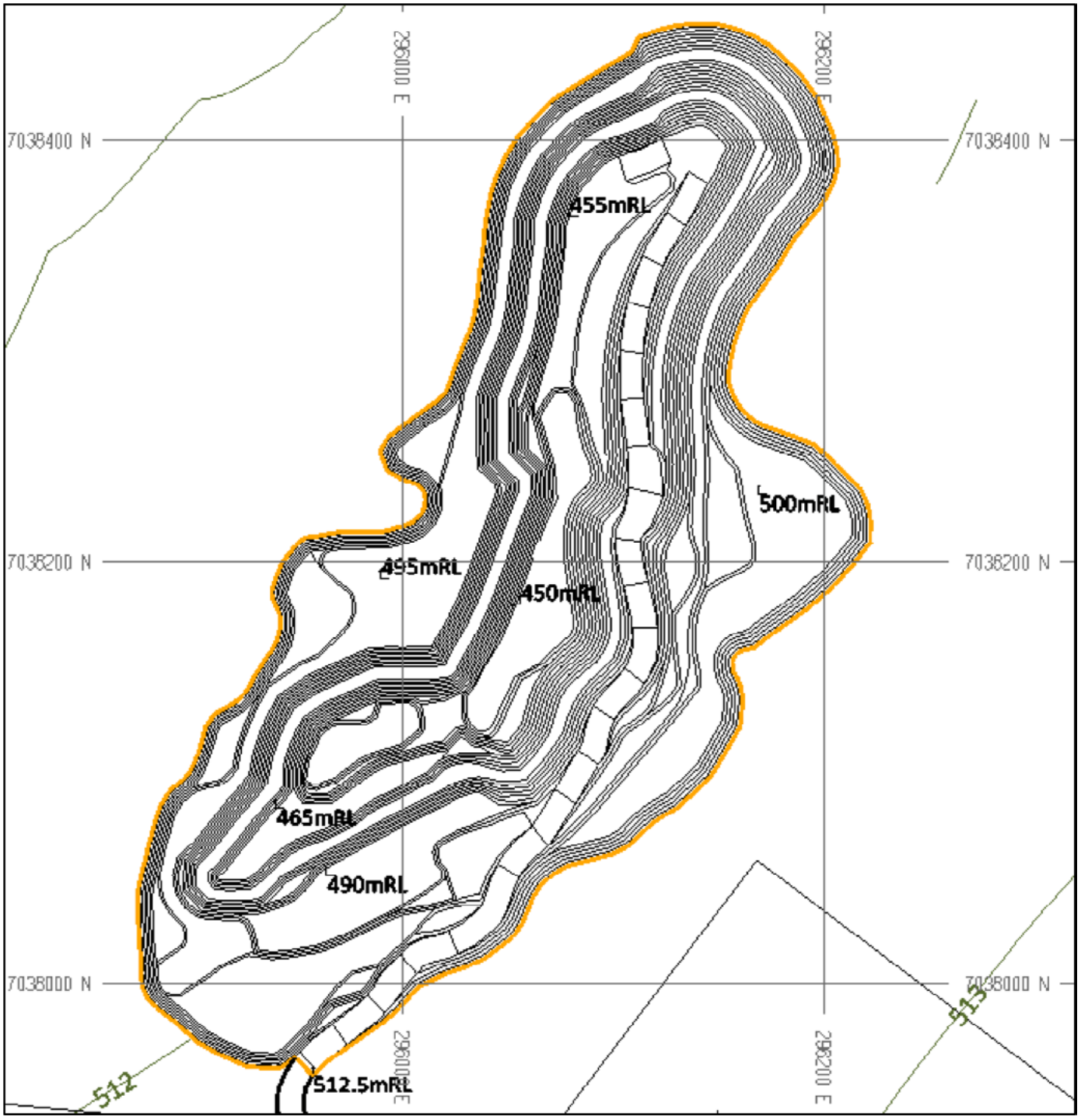


Figure 1-8 Julius Pit Design

1.6.3.2 Orelia Mine Design

The Orelia site layout with surface infrastructure is shown in Figure 1-9 below.

Figure 1-9 Orelia Site Layout

Waste rock dumps have been designed to the east and west of the open pit. Dump design parameters are the same as used for the Julius waste dumps: 15 m high batters with 18° slopes separated by 10 m wide berms. The waste rock dumps for Orelia are extensions to existing dumps. The east dump adds two additional lifts to the existing dump giving a final elevation of 560 mRL (approximately 45 m above the existing topography). The western dump consists of three 15 m lifts from the existing topography to also give a final elevation of 560 mRL.

The ore stockpile area will be immediately to the north of the open pit.

Orelia will be mined in two stages (Stages 1A and 1B). The initial pit stage (Stage 1A), shown in Figure 1-10 deepens the existing pit floor. This will provide just over a year's mill feed and provides a low risk start to mining at the Orelia deposit as no additional stripping is required. Mining this initial stage will also provide invaluable data in determining the optimum grade control and mining techniques and reconciliation with the resource estimation prior to the commencement of the cutback to mine the Stage 1B pit. The Stage 1A pit is 516m north to south, 255 m east to west and deepens the current pit floor from 410 mRL to 315 mRL.

The second pit stage (Stage 1B), shown in Figure 1-11 has been designed on the pit shell providing the greatest discounted cash flow and pushes back the existing pit's western and northern wall to deepen the pit from 315 mRL to 240 mRL.

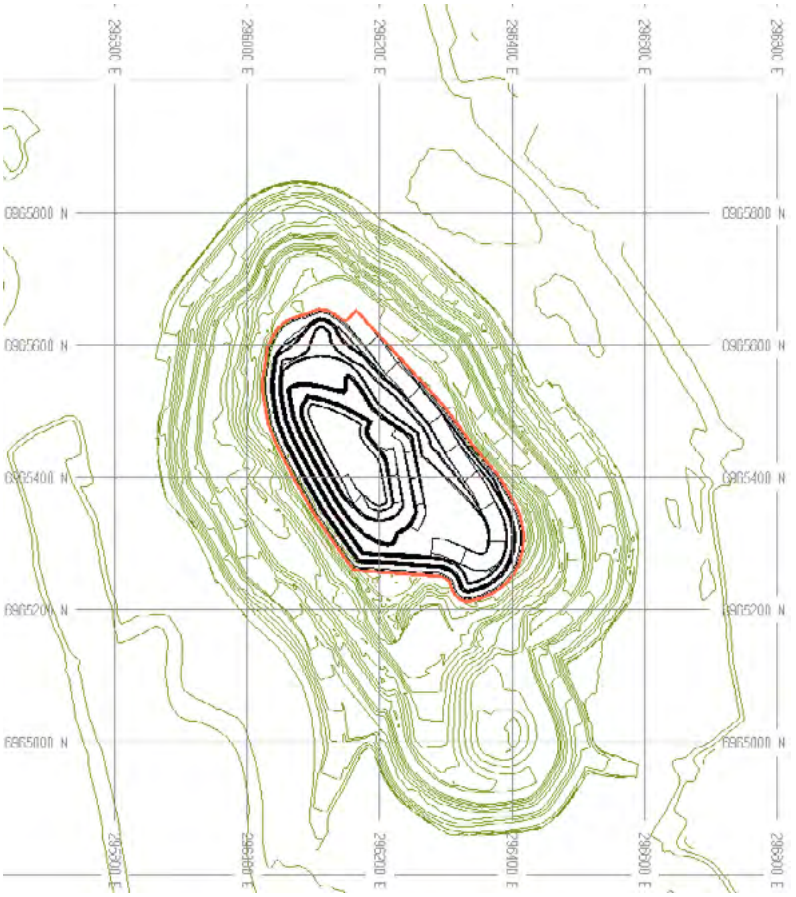


Figure 1-10 Orelia Stage 1A

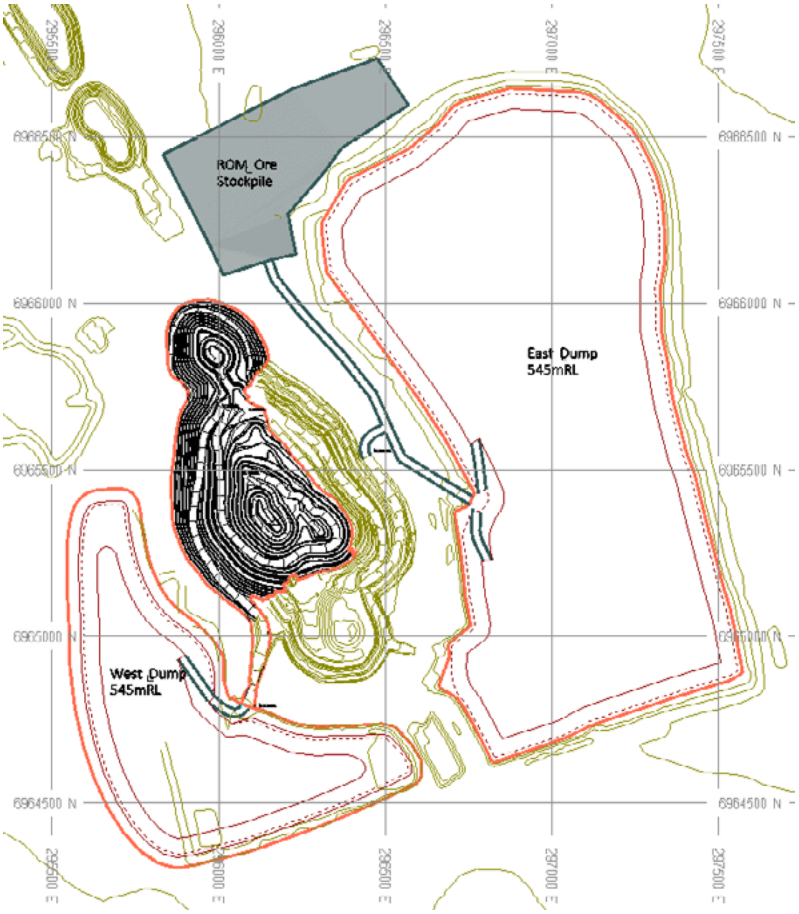


Figure 1-11 Orelia Stage 1B

1.6.4 Mining Schedule

The Yandal Gold Project mining schedule broken up into the individual stages is summarised below:

Table 1-11 Yandal Project Staged Mining Plan - Project Years

	Mining: JULIUS		TOTALS	Pre-Production	Yr1	Yr2	Yr3	Yr4
JULIUS	Total Mined	[kt]	**5,050**	816	4,235			
	Total Waste	[kt]	**4,082**	807	3,275			
	Total Ore	[kt]	**968**	9	959			
	Grade	[g/t]	**2.22**	2.80	2.22			
	Contained Ounces		**69,143**	765	68,378			
	Strip Ratio		**4.22**	94.81	3.41			
	Mining: ORELIA							
ORELIA	Total Mined	[kt]	**33,637**	230	13,028	11,460	5,925	2,994
	Total Waste	[kt]	**27,738**	217	11,269	10,140	4,508	1,603
	Total Ore	[kt]	**5,899**	13	1,759	1,320	1,416	1,391
	Grade	[g/t]	**1.80**	1.39	1.52	1.90	1.54	2.34
	Contained Ounces		**342,275**	589	85,896	80,582	70,339	104,869
	Strip Ratio		**4.70**	16.46	6.41	7.68	3.18	1.15
	Stage 1A							
	Total Mined	[kt]	**9,141**	230	6,638	2,274		
	Waste	[kt]	**6,838**	217	4,980	1,640		
	Total Ore	[kt]	**2,304**	13	1,657	633		
	Grade	[g/t]	**1.67**	1.39	1.51	2.09		
	Contained Ounces		**123,807**	589	80,642	42,576		
	Strip Ratio		**2.97**	16.46	3.01	2.59		
	Stage 1B							
	Total Mined	[kt]	**24,495**		6,390	9,186	5,925	2,994
	Waste	[kt]	**20,900**		6,289	8,500	4,508	1,603
	Total Ore	[kt]	**3,595**		101	686	1,416	1,391
	Grade	[g/t]	**1.89**		1.61	1.72	1.54	2.34
	Contained Ounces		**218,467**		5,254	38,005	70,339	104,869
	Strip Ratio		**5.81**		62.00	12.38	3.18	1.15
	Mining: Total							
TOTAL	**Total Mined**	**[kt]**	**38,687**	**1,046**	**17,262**	**11,460**	**5,925**	**2,994**
	Total Waste	**[kt]**	**31,820**	**1,024**	**14,544**	**10,140**	**4,508**	**1,603**
	Total Ore	**[kt]**	**6,867**	**22**	**2,718**	**1,320**	**1,416**	**1,391**
	Grade	**[g/t]**	**1.86**	**1.94**	**1.77**	**1.90**	**1.54**	**2.34**
	Contained Ounces		**411,418**	**1,355**	**154,273**	**80,582**	**70,339**	**104,869**
	Strip Ratio		**4.63**	**47.21**	**5.35**	**7.68**	**3.18**	**1.15**

Note – Project Year is for a full 12 month period measured from the commencement of Processing

The Life of Mine (LOM) Schedule has been developed using Dassault Systèmes MineSched software. This software allows constraints and targets to be set to control the automatic scheduling functionality. In conjunction with Echo personnel and Dassault Systèmes the study schedule was developed to try to maximise early cashflow for debt servicing whilst applying the following constraints.

Maintain an oxide blend of no greater than 60% oxide (laterite, saprolite and transitional) to 40% fresh. This constraint is set to ensure materials handling issues on high oxide blends are not encountered and to maintain a high throughput rate in the plant.

Horizontal and vertical lags have been utilised within the software to restrict mining. Vertical lag has been set to have a maximum of two benches "open" at any time. Therefore, only a total of 10 m can be advanced vertically prior to having to mine off the remainder of the bench. In theory restricting the total bench advancement to 10 m. A vertical lag in all directions has also been set that directs the schedule to ensure that it mines 60 m in all directions prior to mining out the next bench.

The horizontal lag has been set to ensure blocks are mined in a practical sequence on a bench as well as not creating selective mining scenarios. 20 m x 20 m mining blocks have been set, which directs the mining sequence to advance in all directions at a minimum of 20 m x 20 m has been selected as this represents the minimum mining width for productive mining as agreed with the mining contractor.

Each bench has been set to commence mining from the toe of the ramp for that bench. The direction of mining is then dependent on the sequence derived from the software algorithms.

Both Julius and Orelia were scheduled in the same scheduling run, with optimal blend of oxide to fresh ore being utilised during periods when oxide ores are available. A practical mining approach was undertaken during the scheduling process to ensure a schedule was developed that provided value but was also going to be realistic in execution.

Mining commences with a PC2000 excavator mining at Julius and a R9150B excavator mining at Orelia Stage1A. At the completion of the 495mRL in Julius the excavators are swapped between the pits. This occurs as the PC2000 is utilised to mine out the overburden and laterite ore body at Julius, as it will be able to mine the 4 m thick ore body in one pass, which will assist in the reduction of any ore dilution through mining.

Mining of Julius is then completed utilising the smaller R9150B excavator. Julius has a mine life of seven months, whereby on completion the mining fleet and associated infrastructure will be demobilised to the Orelia mining area and two mining fleets will commence mining at Orelia from month 8. Whilst two excavators are mining at Orelia, the larger excavator has been scheduled to mine the waste in the cutback of Stage1B and the R9150B will mine the ore in Stage 1A. On completion of the 420mRL in Stage 1B the PC2000 will be demobilised from site and only one mining fleet will remain to complete the Orelia Stage 1B pit. This has been scheduled to occur during month 19 of the LOM.

The mine plan has been developed so that the PC2000 has minimal amounts of ore mining in Orelia. Ore production will utilise the smaller R9150B excavator to minimise ore loss and dilution issues.

1.7 ORE RESERVE STATEMENT

The Yandal Ore Reserves estimate shown in Table 1-12 been compiled by Independent Mining Consultant - Stuart Cruickshanks (Fellow AusIMM) in accordance with the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012 Edition).

The Ore Reserves are based on the updated Mineral Resource Models estimated and reported by Widenbar & Associates in October 2018 (Julius Deposit) and June 2018 (Orelia Deposit) respectively.

Table 1-12 Yandal Project Ore Reserves within Stage 1 pits only

	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Contained (koz Au)	Tonnes (Mt)	Grade (g/t)	Contained (koz Au)	Tonnes (Mt)	Grade (g/t)	Contained (koz Au)
Julius Stage 1 BFS	0.8	2.3	60	0.2	1.7	9	1.0	2.2	69
Orelia Stage 1 BFS	2.5	2.2	179	3.4	1.5	163	5.9	1.8	342
Total	**3.3**	**2.2**	**239**	**3.6**	**1.5**	**173**	**6.9**	**1.8**	**411**

The breakeven cut-off grade used in the estimation of the Yandal Ore Reserves for the Julius mineralisation is 0.8 g/t and for the Orelia deposit it is 0.6 g/t.

The grades and metal stated in the Ore Reserves Estimate include mining recovery and dilution estimates. The Ore Reserve Estimate is reported within the open pit designs prepared as part of this study.

The Ore Reserve Estimate is based on the Mineral Resource Estimate classified as "Measured" and "Indicated" after consideration of all mining, metallurgical, social, environmental and financial aspects of the operation. The Proved Ore Reserve has been derived from the Measured Mineral Resource and the Probable Ore Reserve has been derived from the Indicated Mineral Resource.

1.8 METALLURGY AND PROCESS PLANT

1.8.1 Julius Metallurgy

Several rounds of metallurgical test work have been completed on the Julius mineralisation. The test work established that the ore is amenable to treatment through conventional carbon in pulp/carbon in leach (CIP/CIL) plant flowsheets with a gravity circuit and expected recoveries of greater than 94%. Up to 70% gravity gold was extracted from oxide samples with rapid leach kinetics from leaching of the gravity tail.

The primary findings of the program were that the Bronzewing plant flowsheet and installed equipment is ideally suited to treating the Julius ore. Sample composites targeting Laterite, Upper and Lower Oxide zones were selected for grind size recovery analysis. A maximum grind size of 150 microns demonstrated overall recoveries (including gravity) from 94% in Laterite to 99% in Lower Oxide test work. An average recovery rate of 94.5% was selected for Julius ore processing and used for production modelling purposes. Sighter tests on a range of fresh ore samples gave indicative recoveries of > 92%.

1.8.2 Orelia Metallurgy

Ore from the Orelia pit has previously been treated through the Bronzewing plant with no significant operational issues encountered. Samples from resource drilling undertaken during 2017 were submitted to commercial laboratories for metallurgical test work to confirm that gold recovery and ore physical properties were in line with historical processing performance.

Orelia ore was historically treated at rates of more than 1.8 Mtpa, with gold recoveries averaging 91% from the most recent data. Typical grind size was 80% passing 125 to 135 microns.

The defined metallurgical test work program conducted by Bureau Veritas on 2017 drill samples assessed gravity and cyanide leach gold recovery. Australian Laboratory Services (ALS) tested half core samples to establish the physical comminution properties of the Orelia ore.

The 2017 results for Orelia ore samples taken from the deeper regions of the proposed pit were consistent with the historical data for gold recovery and ore physical properties.

1.8.3 Mill Feed Characterisation

The ore characterisation from test work established that both Julius and Orelia ores are amenable to treatment through conventional CIP/CIL plant flowsheets with an installed gravity circuit. Recoveries of between 91% and 94% were returned with an average of 92% estimated from the test work.

The Bronzewing plant flowsheet and the installed equipment is well suited to treating the Julius and Orelia ore. Based on the results reviewed, a milling throughput rate ranging from 2.1 Mtpa for Julius oxide to 1.7 Mtpa for Orelia fresh ore has been used. Due to materials handling issues with high proportions of Julius oxide ore a cap of 60% of this material has been imposed for the blend to the plant. This rate is consistent with the Julius and Orelia mine production rates.

Established from the 2017 test work results and review of historical operating and test work data, the ore characterisation is summarised in Table 1-13 below.

Table 1-13 Yandal Project Metallurgical Summary

Aspect	Orelia	Julius	Average Ore blend to mill
Nature	Free Milling	Free Milling	Free Milling
Throughput rate (tph)	205 fresh	260 oxide	-
Ore Grade g/t	1.80	2.20	1.90
Ore SG	2.90	2.50 Laterite 2.02 Oxide	2.60
Gravity Gold Recovery	30%	30%	30%
Crushing Work Index kWhr/t	7.7	-	-
Abrasion Index	0.1213	0.0014 Laterite 0.0012 Oxide	-
Bond Ball Mill Work Index kWhr/t	16.7	19.6 Laterite 12.8 Oxide	15.0
Gravity / Leach Recovery at P_{80} 125 um	91.6%	94.5%	92%
Leach time (hrs)	26	18	
CN Consumption kg/t	0.75 - 1.00	0.75 - 1.00	0.75 - 1.00
Lime Consumption - Site Water kg/t	0.7	2.5	2.5
Oxygen Injection	0.8m^3/t	0.8m^3/t	0.8m^3/t

1.8.4 Bronzewing Treatment Plant

The Julius Gold Project Bankable Feasibility Study published in January 2017 established the production pathway for ore mined from Echo's tenements being processed through a refurbished Bronzewing treatment plant.

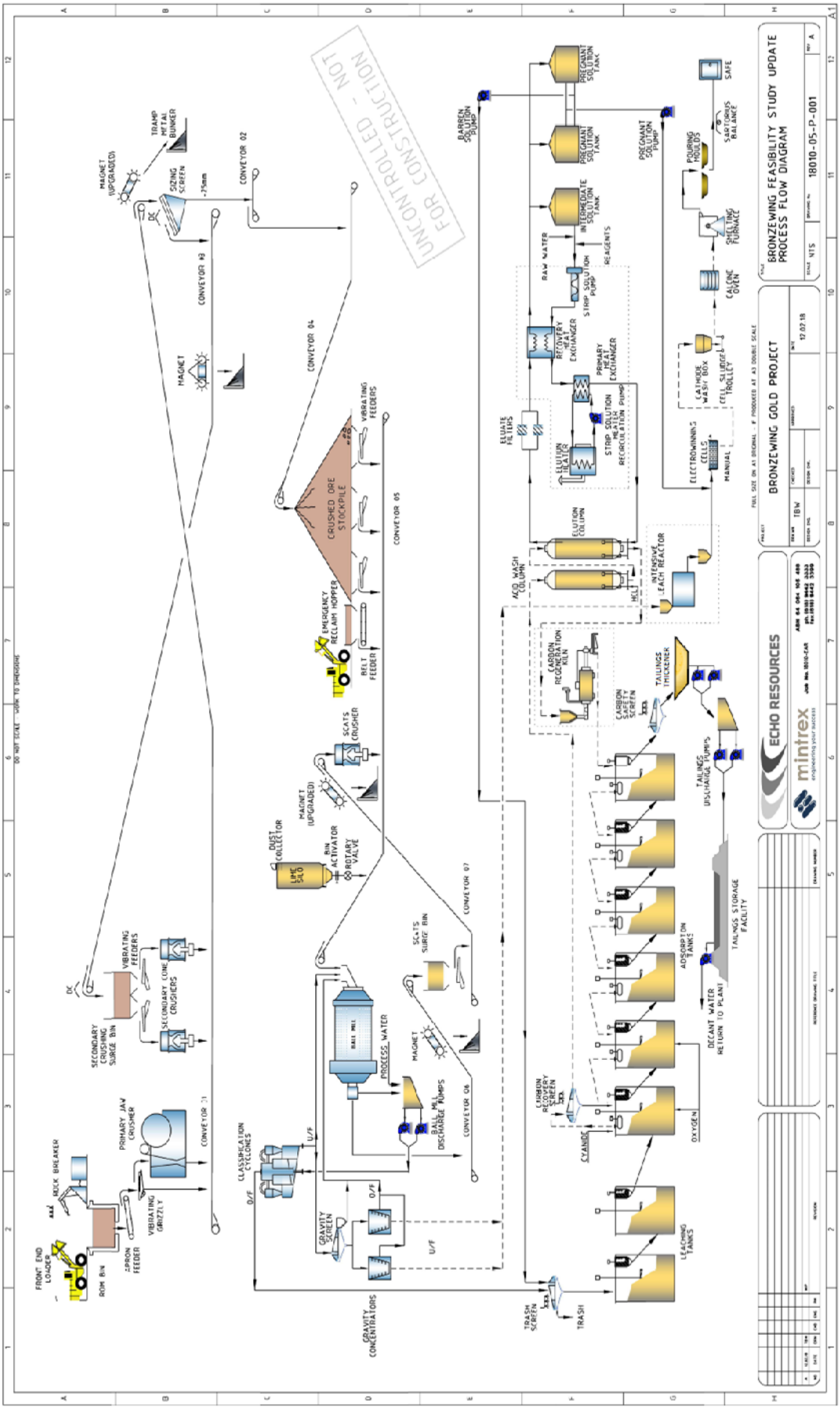


Figure 1-12 Bronzewing Processing Plant Flowsheet

The Bronzewing treatment plant has a two-stage crushing circuit, followed by ball mill with installed pebble crusher. The comminution circuit includes gravity gold extraction, followed by CIL and carbon elution circuits.

Tailings will be disposed of in the licensed in-pit tailings storage facility, which has sufficient capacity to store at least a further 17.5 million tonnes of tailings.

1.8.4.1 Plant Refurbishment

Mintrex were engaged by Echo to prepare a scope of works and capital cost estimate for the refurbishment of the Bronzewing plant to a BFS level. Mintrex is an engineering consulting, project management and asset management organisation providing service to the international mineral extraction industries.

Echo provided a process definition package including the process design criteria for the Julius and Orelia orebodies to Mintrex for consideration in the refurbishment.

The Mintrex 2018 refurbishment estimate was prepared on the following basis:

- By limited quantitative assessment of the work content;
- Budget prices obtained from vendors for major items of equipment;
- Budget labour, equipment and unit rates obtained from contractors; and
- Budget transport costs obtained from contractors.

Most of the refurbishment scope involves restoring existing equipment to a reliable condition. Full replacements will be completed for the secondary and scats crushers (three units total), crushing dust collector, emergency reclaim hopper/feeder, and the CV01 head end tramp magnet.

A Refurbishment Schedule of approximately 20 weeks is proposed from mobilisation of the appointed contractor. Subsequent to the Mintrex BFS refurbishment cost estimate, tender packs were issued in March 2018 to a number of engineering contractors to enable firm pricing to be utilised for the BFS capital cost estimate. The tender quotes were received and after an extensive review process MACA-Interquip was selected as the preferred tender. The capital cost estimate for the plant refurbishment has been updated based around the MACA-Interquip proposal in January 2019 which is summarised below in Table 1-14.

Table 1-14 Updated Process Plant Refurbishment Capital Estimate

Bronzewing Plant Refurbishment	Estimate ($)	Percentage
Crushing Plant	**2,289,865**	**11%**
Comminution	**4,513,925**	**23%**
Gravity and Classification	**1,419,656**	**7%**
Leach and Adsorption	**2,767,968**	**14%**
Elution and Gold Room	**429,198**	**2%**
Reagents and Services	**204,006**	**1%**
Electrical and Instrumentation	**1,484,075**	**7%**
Construction Overheads and PC Sums	**3,958,021**	**20%**
Additional Capital Works and Materials	**2,225,500**	**11%**
Site Management	**560,000**	**3%**
Commissioning	**100,000**	**1%**
Total Bronzewing Plant Refurbishment	**19,952,214**	**100%**

Figure 1-13 Bronzewing Processing Plant

1.9 INFRASTRUCTURE AND SERVICES

There is existing road access to the Bronzewing plant and close to the Julius mine site. The Bronzewing facilities include an unsealed airstrip suitable for propeller aircraft, which is approximately 1.5 hours flying time from Perth. The all-weather Leinster airstrip is located approximately 83 kilometres to the south-west by road from Bronzewing and daily flights using jet aircraft also provide access to the site.

Major infrastructure already in place to support the operation, in addition to the existing process plant, includes:

- All electricity reticulation network and power station infrastructure, available for a suitable contract power supplier;
- Minimum tailings storage capacity of 17.5 Mt in the depleted Discovery Pit, located approximately 1.7 km south-west of the plant;
- Bronzewing site administration, warehouse and workshop buildings;
- Suitable site office and accommodation facilities will be required to be provided at the Julius mine site, by relocation of spare transportable buildings from Bronzewing and the purchase of several accommodation units;
- The Bronzewing site includes an accommodation village suitable for housing up to 240 people in its current configuration;
- Raw water can be sourced from a licensed borefield and disused open pits with pipework currently in place;
- An upgraded communications system will maintain sufficient local and external communications for operation and emergency management and will provide efficient internet connectivity and speed for data transfer between site and Perth office.

1.10 ENVIRONMENT, COMMUNITY AND APPROVALS

As Bronzewing has a previous operating history and was last operating in 2013, the required licences and approvals were in existence with some remaining current. Reactivation of these approvals is required with inclusion of the Julius Project to form the Yandal Gold Project.

Julius as a new project has been subject to a full approval program managed by Echo. A third amendment to the Mining Proposal has been submitted to the DMIRS and was approved in September 2018.

Based on work completed to date, there are no known environmental impediments to the Project proceeding.

The regulatory approvals listed in Table 1-15 are approved, submitted, or are in progress.

The Orelia Mining Proposal was submitted in June 2018 and has been reviewed by the Department of Mines, Industry Regulation and Safety, which was approved on 19 February 2019.

The EPA proposal to convert the Bronzewing operations from a care and maintenance status to an operating status will be lodged in April 2019.

Table 1-15 Yandal Gold Project Approval Status

Approval	Submission Date	Status
1. Julius Gold Project Land Access Native Title Agreement	Dec 2016	Executed and granted– M53/1099
2. State Deed for granting of M53/1099	Jan 2017	Granted
3. Mining Proposal – Julius	Apr 2017	Approved 27 June 2017
4. Mining Proposal – Julius Haul Rd Amendment	Mar 2018	Approved 18 April 2018
5. Mining Proposal – Julius Waste Dump and Updated Pit Design Amendment	June 2018	Approved September 2018
6. Clearing Permit – Julius Project / Haul Road	Jan 2018	Approved 11 March 2017, 7422/2 (ML53/1099, 53/203, 53/204, 53/206)
7. Julius Water Licence	Mar 2017	Granted - GWL183545, 0.33 GL pa
8. Julius Haul Route – Ethnographic and Archaeological Surveys	Dec 2017	Surveys completed – Report Jan 2018. No significant ethnographic sites.
9. EPA 1986 Licence L8358/2009/2	April 2018	Held by Echo for Bronzewing project, currently on care and maintenance status, application to return to operating status to be lodged in April 2019.
10. Licence to Take Water (DoW) – 3.75 GL pa	Current	Held by Echo for Bronzewing GWL104591 3.75 GL pa
11. Dangerous Goods Site Licence DGS015482	Current	Held by Echo for Bronzewing operation transferred to Echo 17 Jan 2018
12. Orelia – Bronzewing Project Management Plan	April 2018	Approval 25 May 2018 (DMIRS) PM-197-301040
13. Julius Project Management Plan	April 2018	Approval 6 June 2018 (DMIRS) PM-219-301361
14. Orelia updated Mining Proposal	June 2018	Approved February 2019

The proposed areas of impact of the Yandal Gold Project have been previously disturbed by pastoral, exploration and mining activities. The land-systems and associated vegetation and habitat complexes at Bronzewing, Orelia and Julius are well represented in the region. Consequently, the potential impact on local flora and fauna is not considered to be significant in a regional context.

Development of the Yandal Gold Project will provide increased opportunities for local employment within the district. Environmental effects from mining activities, such as dust generation, erosion and waste generation will be managed to mitigate or minimise any impacts.

1.11 PROJECT IMPLEMENTATION

To commence operation of the Yandal Gold Project the following development activities will be undertaken:

- Project Management Plan approvals have been received from DMIRS in June 2018 for both Julius and Orelia.
- Development and implementation of a site wide occupational health and safety management system to govern the operations. The key driver behind the development and implementation of the system is the commitment to providing a safe and healthy workplace and sustainable environment for all stakeholders.
- Development of HR policies and an organisational structure to support the operation. Recruitment and on-boarding of key management personnel and the workforce to successfully commence and operate the Project.
- Refurbishment of the Bronzewing processing facility – a scope has been prepared in the feasibility study and a preferred contractor has been selected to conduct the work.
- Reinstating all infrastructure required to service and supply the operations.
- Construction of new sections of haul road, and modification and maintenance to the Barwidgee Road to facilitate ore haulage from the Julius Mine to the treatment plant.
- Recommissioning of the Bronzewing Accommodation Village and engagement of a catering and camp management contractor.
- Provision of office, accommodation facilities and associated infrastructure to the Julius mine site.
- Re-establishment of power supply via a build - own - manage contract at the Bronzewing power station.
- Execution of key reagent and consumables supply contracts to support the ore processing needs and provision of first fills.
- Appointment of a suitably experienced open pit mining contractor to mine Julius and Orelia, and
- Commissioning of the mill to process the Julius and Orelia ore and production of gold doré.

Key personnel will be recruited at appropriate times and will provide project management supervision and support through the stages of project development ramping up to operational status. To date a Registered Manager and Mining Manager have been appointed.

Due to the nature of the work required, the refurbishment of the Bronzewing treatment plant will, to a large extent, dictate the timing for start-up of operations. The refurbishment schedule contemplated has a duration of 20 weeks for completion.

Due to the straightforward mining method and low pre-strip, the Julius mining schedule can be timed to suit the mill start up without significant inconvenience. Currently it is assumed that mining commences at Julius two months prior to completion of the process plant refurbishment and at Orelia six weeks prior to refurbishment.

Pre-production capital and operational expenditure for the start-up of the project has been allowed for in the economic model.

1.12 OPERATIONS

Sufficient skills exist in the Western Australian labour market to adequately cover the operational needs of the Project. The mine will employ a contract mining services company, with management and technical support from Echo employees.

The processing operation will be managed and operated by a team of Echo employees. Support services will be provided for the operations and will be based at the Bronzewing site. The Perth corporate office will support and service the site operation. The Project will operate on a FIFO basis and efforts will be made to engage labour or contractors from nearby local communities wherever possible.

1.13 COSTS

1.13.1 Pre-Production Capital

As part of the Revised Feasibility Study development capital costs and pre-production earthmoving and haulage costs, including site management and mobilisation costs, were estimated and are summarised in the tables below. Table 1-16 shows the Pre-Production Capital from the commencement of refurbishment and Table 1-17 shows further breakdown of Owner's Costs.

Table 1-16 Pre-Production Capital Summary

Work Area	Estimate (A$)
Julius Mine Infrastructure	367,350
Haul Road Establishment	1,496,545
Accommodation Village Maintenance	1,181,000
Infrastructure Setup	1,597,900
Administration	1,804,739
Orelia Dewatering	249,534
Bronzewing Plant Refurbishment (refer Table 1-14 for a breakdown)	19,952,214
Consumables & First Fill	2,357,891
Project Owners Costs (refer Table 1-17 for a breakdown)	6,062,626
Sub Total	**35,069,799**
Contingency	2,908,717
Total Development Capital	**37,978,516**
Pre-Production Mining Costs[1]	3,585,467
Total Pre-Production Capital	**41,563,983**

1. Pre-Production Mining Costs are calculated up to the month of the first gold pour.

Table 1-17 Project Owner's Costs

Owners Costs	Estimate ($)	Percentage
Accommodation & Catering	1,075,800	18%
Flights	712,640	12%
Insurance Allowance	180,000	3%
HSEC - Training, Consultants, System Development	105,000	2%
Consumables	55,000	1%
Diesel Usage Allowance	135,000	2%
Echo Employees	2,967,251	49%
HR Recruitment Costs	314,000	5%
Contracts & Legal Support	175,000	3%
Vehicle Hire	156,815	3%
Other Expenses	186,120	3%
Total Project Owner's Costs	**6,062,626**	**100%**

1.13.2 Operating Costs

Operating costs were estimated for the process plant, mine operation and site administration based upon the current life of mine plan.

Mintrex were requested by Echo to prepare a processing cost estimate for the refurbished Bronzewing treatment plant, based on their review and confirmation of the process design criteria provided. Echo further reviewed and modified the Mintrex processing cost estimate to allow for a workforce FIFO roster of 8 days on and 6 days off for its employees. An electrical load study was also undertaken to estimate electricity requirements. Echo has applied a $0.90 cents per litre diesel fuel price for power generation. These changes were included in the final processing cost estimate in Table 1-18 below.

Table 1-18 Processing Cost Summary – Life of Mine Costs

Activity	LOM Total ($)	Unit Rate ($/tonne processed)	Percentage
Salaries & On-costs	31,798,000	4.63	22%
Maintenance Costs (Ex. Salaries)	13,948,000	2.03	10%
RoM Feed Costs	9,423,123	1.37	6%
Mobile Equipment	3,885,816	0.57	3%
Power	46,795,785	6.81	32%
Consumables	40,662,106	5.92	28%
Total Processing Cost	**146,512,830**	**21.34**	**100%**

Key metrics of the life of mine mining costs on a cost per total tonne mined basis are summarised below in Table 1-19 and are based on a combination of tendered mining rates and contractor provided indicative rates. Costs exclude pre-production mining costs which are incorporated into development capital expenditure.

Table 1-19 Mining Cost Summary – Life of Mine Costs

	Operating Cost Area	LOM Total ($)	Unit Rate ($/TMM)	Percentage
Julius	Julius Direct Mining Cost (ELH, D&B, Dayworks)	8,137,315	1.92	40%
	Julius Contractor Management	1,758,618	0.42	9%
	Julius Grade Control	722,608	0.17	4%
	Julius Mine Dewatering	60,000	0.01	0%
	Mine Development	887,467	0.21	4%
	Ore Haulage	7,540,727	1.78	37%
	Echo Mine Management	1,086,645	0.26	5%
	Total Julius Mining Cost	**20,193,380**	**4.77**	**100%**
Orelia	Orelia Direct Mining Cost (ELH, D&B, Dayworks)	106,452,742	3.19	68%
	Orelia Contract Management	20,358,472	0.61	13%
	Orelia Grade Control	5,211,142	0.16	3%
	Orelia Mine Dewatering	410,000	0.01	0%
	Mine Development	1,489,706	0.04	1%
	Ore Haulage	11,797,991	0.35	8%
	Echo Mine Mangement	11,096,772	0.33	7%
	Total Orelia Mining Cost	**156,816.825**	**4.69**	**100%**

The key differences between the mining costs at Julius and Orelia are:

- Haulage is higher at Julius due to its distance from the Bronzewing plant;
- Orelia direct mining costs are higher due to Orelia being deeper and predominantly in fresh rock.

Echo completed its Site Administration cost estimate on a site-wide basis using quotes and/or tenders for a large portion of the cost assumptions in Table 1-20.

Table 1-20 Site Administration Cost Summary – Life of Mine Costs

Item	LOM Total ($)	$/Tonne Processed	Percentage
Travel (Flights)	11,512,107	1.68	25%
Accommodation	10,593,863	1.54	23%
Site Administration Salaries	13,078,000	1.90	28%
Communications	686,784	0.10	1%
Freight	1,693,440	0.25	4%
Light Vehicles	1,193,520	0.17	3%
HSEC Costs	825,200	0.12	2%
Management Systems	1,233,648	0.18	3%
Consumables	537,600	0.08	1%
Power Allocations	28,000	0.00	0%
Diesel	101,397	0.01	0%
Bullion Transport & Refining	372,222	0.05	1%
Insurance	2,800,000	0.41	6%
Project Specific Tenement Rents & Rates	1,298,256	0.19	3%
Total Site Administration Cost	**45,954,037**	**6.69**	**100%**

1.14 FINANCIAL ANALYSIS

Based on the capital and operating cost estimates a financial model has been developed for the purpose of evaluating the economics of the Yandal Gold Project. The full model has the capability to assess the capital structure for the development of the Project, including the Project's debt capacity. The model is designed to meet the expectations of any providers of potential debt funding for their due diligence programs as well as other internal requirements.

The financial model utilises the prevailing mine and processing schedule outlined earlier (6.9 mt @ 1.86 g/t processed) and a gold price of $1,800 /oz.

The Project will initially be considered as a staged mining approach with Stage 1 targeting the highest grades and lowest strip ratio in Years 1 to 4 as outlined in Table 1-21.

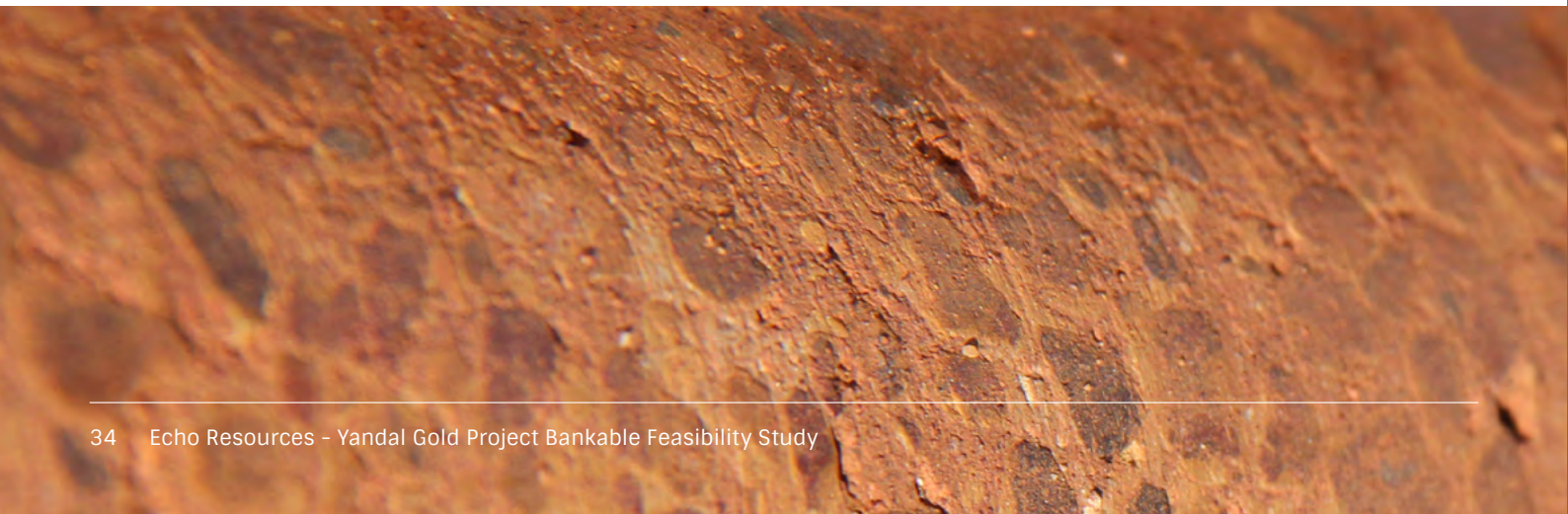


Table 1-21 Yearly Production, Cashflow and Project Metrics

	Units	Total LOM	Pre-Prodn	Yr 1	Yr 2	Yr 3	Yr 4
Mining							
Julius Ore Mined	kt	**968**	9	959	-	-	-
Julius Grade Mined	g/t	**2.22**	2.80	2.22	-	-	-
Orelia Ore Mined	kt	**5,899**	13	1,759	1,320	1,416	1,391
Orelia Grade Mined	g/t	**1.80**	1.39	1.52	1.90	1.54	2.34
Processing							
Julius Ore Tonnes	t	**968**	-	787	152	10	19
Julius Head Grade	g/t	**2.22**	-	2.44	1.28	1.28	1.18
Julius Recovery	%	**94.5%**	-	94.5%	94.5%	94.5%	94.5%
Julius Gold Produced	**koz**	**65**	**-**	**58**	**6**	**0**	**1**
Orelia Ore Tonnes	t	**5,899**	-	955	1,635	1,716	1,594
Orelia Head Grade	g/t	**1.80**	-	1.52	1.76	1.55	2.30
Orelia Recovery	%	**91.6%**	-	91.6%	91.6%	91.6%	91.6%
Orelia Gold Produced	**koz**	**314**	**-**	**43**	**85**	**78**	**108**
Total Gold Production	**koz**	**379**	**-**	**101**	**91**	**79**	**108**
Cashflows							
Gold Price	$/oz	**1,800**		1,800	1,800	1,800	1,800
Gold Revenue	**$M**	**682**	**-**	**182**	**163**	**142**	**195**
Mining and Processing Cost	$M	**(324)**	-	(104)	(89)	(72)	(58)
Site Administration	$M	**(46)**	-	(12)	(12)	(11)	(11)
Royalties	$M	**(39)**	-	(11)	(9)	(8)	**(11)**
Sustaining Capital	$M	**(6)**		(2)	(1)	(1)	(1)
Pre-Production Capital	$M	**(42)**	(33)	(9)			
Project Free Cashflow	**$M**	**225**	**(33)**	**44**	**52**	**49**	**113**
Cumulative Project Free Cashflow	**$M**	**225**	**(33)**	**11**	**63**	**112**	**225**
Pre-Tax NVP$_{8\%}$	$M	**172**					
Pre-Tax IRR	%	**198%**					
Payback	Years	**0.4**					
Production Cost Metrics							
Cash Cost (C1)	**$/oz**	**977**	**-**	**1,154**	**1,108**	**1,058**	**642**
AISC	**$/oz**	**1,095**	**-**	**1,280**	**1,225**	**1,176**	**756**

Economic modelling for the Yandal Gold Project provided the following key outcomes:

- Development capital of $38 million plus pre-production mining costs of $4 million;
- Production of 379 koz of gold over four years;
- Total processing of 6.9 Mt at 1.86 g/t with an average gold recovery of 92.1% (314 koz produced from Orelia and 65 koz produced from Julius);
- LOM Cash Cost (C1) of $977 /oz produced, with an all-in sustaining cost (AISC) of $1,095 /oz produced;
- Project royalties total $39 million, comprising payments to the Western Australian State Government and third-party interests;
- Project Free Cashflow (pre-tax) of $225 million;
- Pre-Tax NPV applying an 8% discount rate ($NPV_{8\%}$) is $172 million with a Pre-tax Internal Rate of Return (IRR) of 198%;
- The total cost of production for the ore treated is $53.80 per tonne of ore processed, comprising:
    - Average Mining (for Orelia and Julius pits incl. road haulage and Echo Mining Management) Cost - $25.78 /t;
    - Processing Cost - $21.34 /t;
    - Site Administration Cost - $6.69 /t;
- Additional cost items include:
    - Royalty Cost - $ 5.74 /t;
    - Sustaining Capital - $ 0.88 /t;
- All cashflows are quoted pre-tax. Echo is estimated to have $40 million of carried forward tax losses available at 30 June 2018.

The Project is most sensitive to changes in the gold price, recovery and grade. The $NPV_{8\%}$ and IRR sensitivity to changes in gold price are shown in Table 1-22 and Figure 1-14 and Figure 1-15.

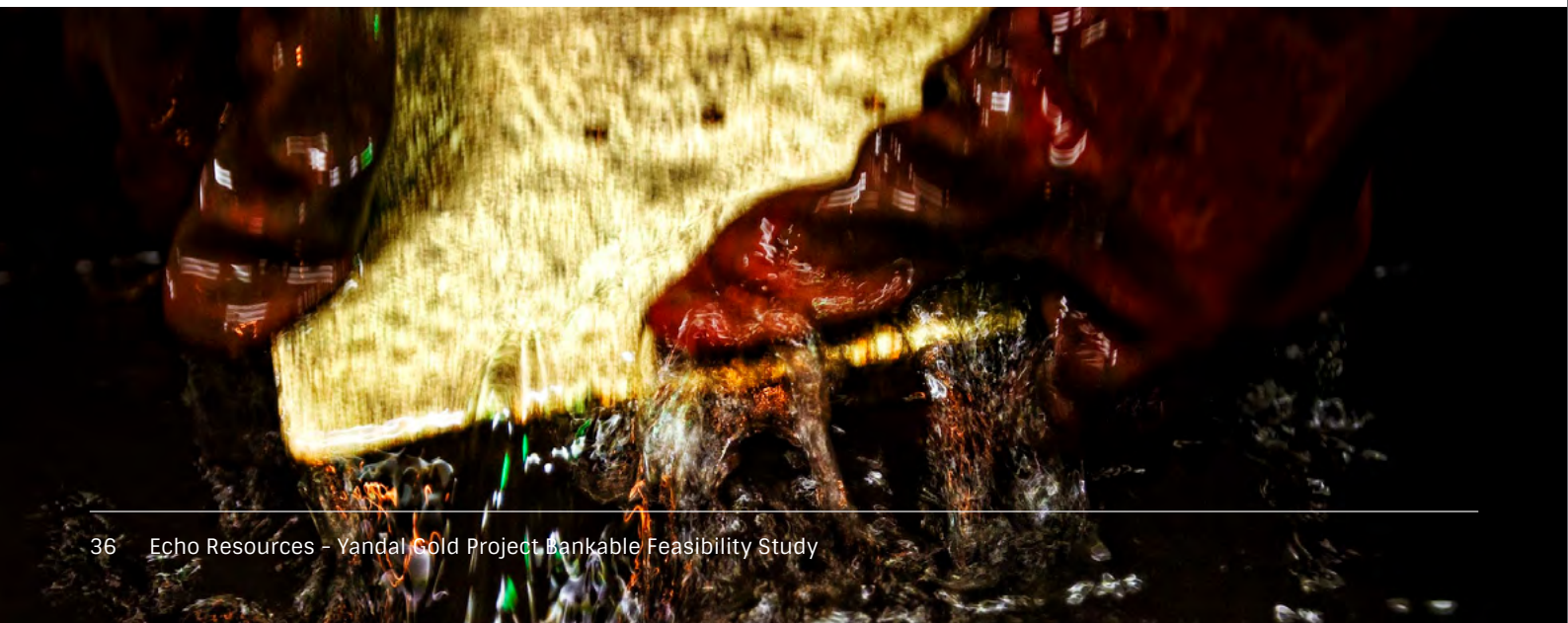
Table 1-22 Project Economics Sensitivity to Gold Price

Gold Price Sensitivity	A$/oz	Low - 1,700	Base - 1,800	High - 1,900
Project Free Cashflow, Pre-Tax	A$M	190	225	261
Pre-tax $NPV_{8\%}$	A$M	143	172	201
Pre-tax IRR	% p.a.	154%	198%	249%
Payback (pre-tax)	Years	0.8	0.4	0.4

* Payback period is calculated from the month following first gold production.

The sensitivity results reflect a change in one parameter at a time, assuming the other parameters are unchanged.

The Project is considerably more sensitive to changes in operating costs (mining, processing, site administration) than capital costs, a result of the low base case capital costs for the Project and LOM aggregate operating costs.



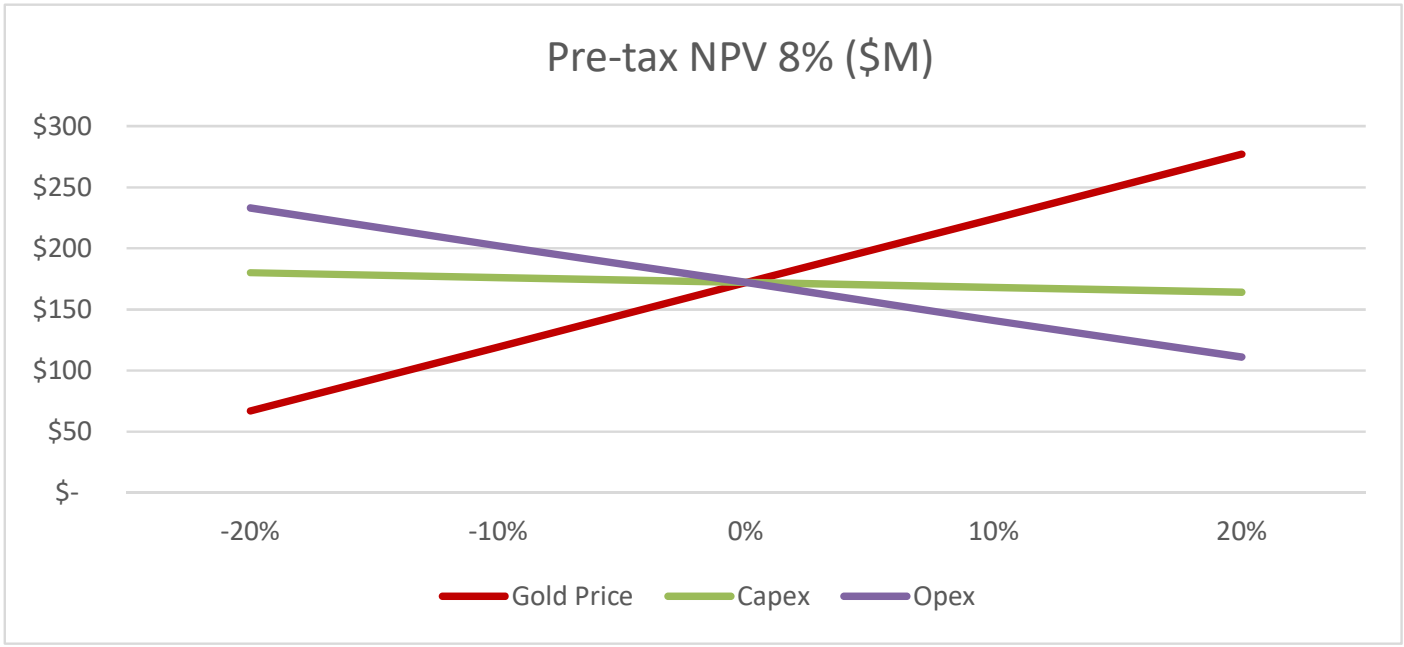


Figure 1-14 Stage 1 NPV8% Sensitivity Chart

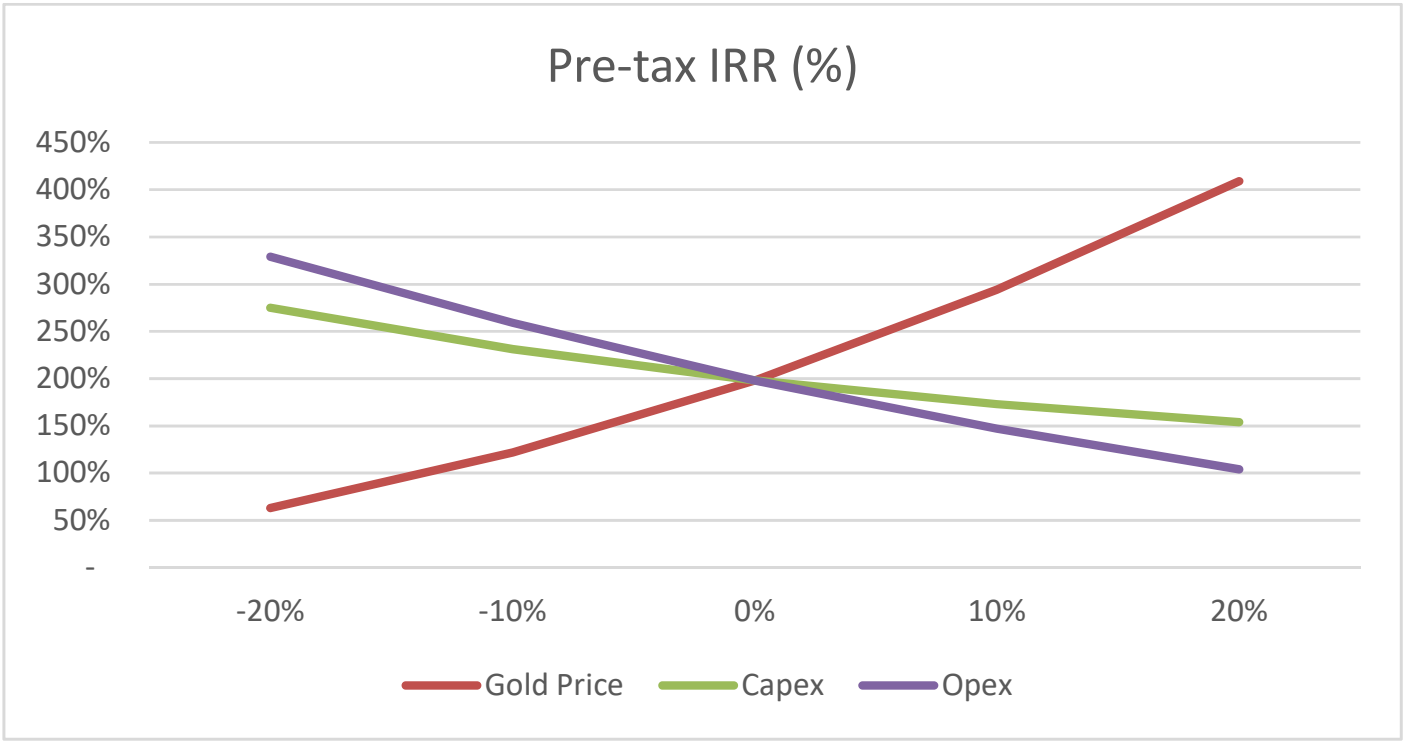


Figure 1-15 IRR Sensitivity Chart

1.15 OPPORTUNITY AND RISK

1.15.1 Opportunity

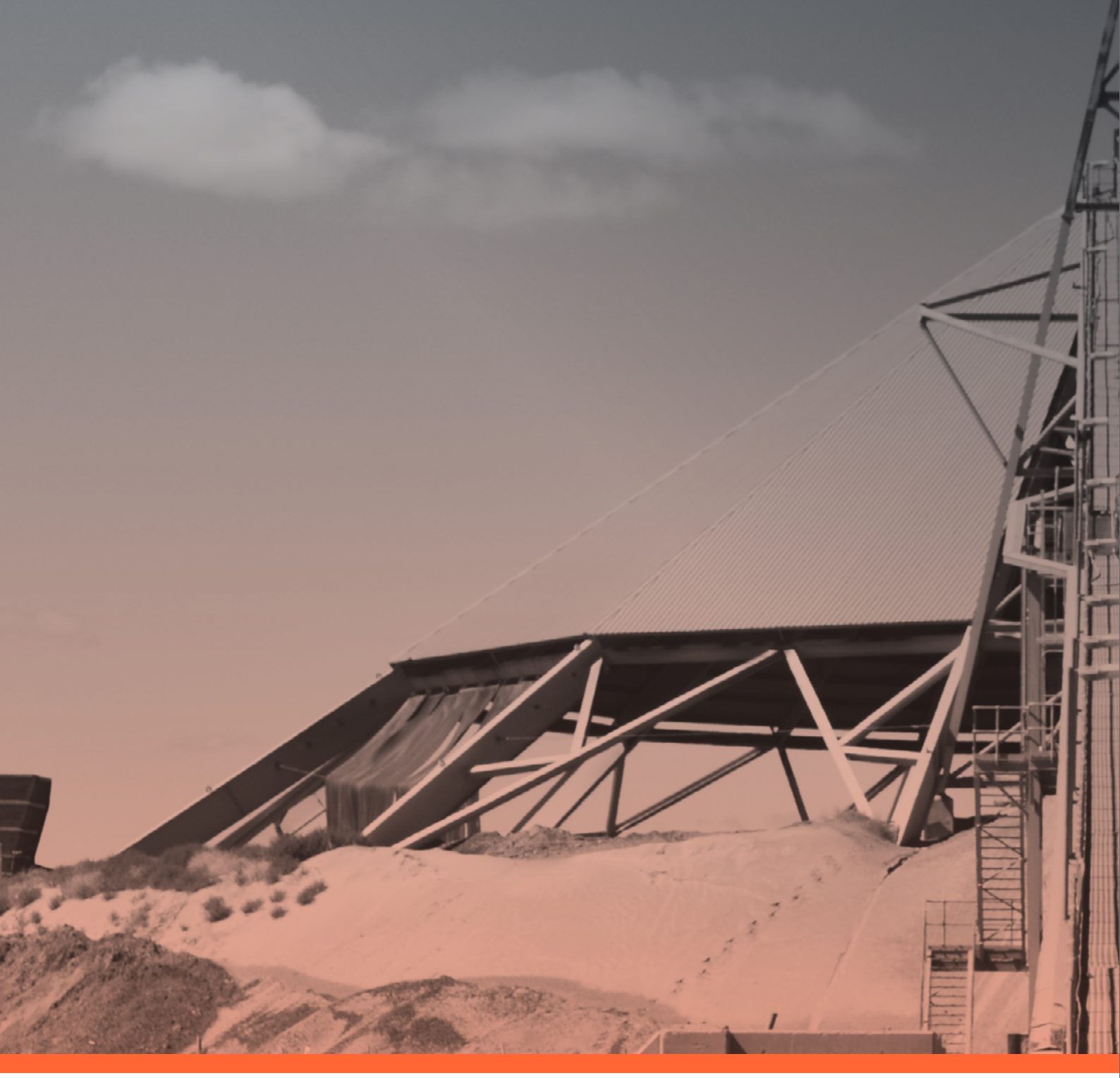
The project outlined in this Revised Feasibility Study is projected to deliver a positive return on investment, is financially robust with a relatively low risk profile. Further potential upside opportunities are outlined below:

- The addition of multiple ore grade bins and stockpiles (eg: low grade and high grade) when mining Orelia pit will enable higher grade stockpiles to be preferentially hauled to the process plant bringing ounces forward in the mine life which will result in an improved cash flow in early years.
- Potential exists to extend the life of the earlier, higher-grade feed profile by converting additional resources, which do not sit within the current life of mine plan, to economic reserves;
- Potential to improve the Project economics by saving operating cost and reduce schedule timing. Project operating experience may enable optimisation of production costs and techniques;
- Whilst the capital cost to recommence the Project includes the cost of refurbishing the thickener the operating costs do not include any cost reduction for reduced water supply requirements or reduction in reagent consumption. Further test work is required to confirm the amount of any savings;
- An operational process plant in the region provides significant strategic value for Echo. It provides a processing route for other resources in the district with possible leverage for Echo in the development and treatment of those resources;
- Exploration drilling has outlined several potential gold oxide resources at Mt Joel, Lowlands, Shady Well, Wimbledon and Golden Snag with reasonable expectation that further drilling and technical studies may result in additional economic material leading to a potentially increased mine life and profitability;
- Exploration potential below shallow oxide resources remains untested across the majority of the tenure.
- The Project funds an operating process plant in its early stages creating opportunity for reassessment of the various historic mines on the tenements under current gold price and operating cost regimes;
- With the process plant operating, exploration success for Echo can potentially be more directly and efficiently monetised in the future. The cash generated by the Project can partially be utilised to fund this exploration;
- The Project transitions Echo from explorer to producer which should in turn be potentially recognised by a corresponding increase in company valuation.

1.15.2 Risk

Material risks contemplated along with mitigating circumstances are considered as follows:

- Gold price risk – There is a risk of negative movement in the gold price compared to the study assumptions.
  - To mitigate this risk the gold price used for cash flow modelling is at or below the average Ask price reported by the Perth Mint for the first quarter of 2019.
  - Financing terms available from the banks engaged to provide debt finance support the ability to take out gold hedge contracts for a portion of gold production at rates above the gold price used in cash flow modelling.
- Geological risk – There is a risk that the modelled ore tonnes and grade will not be realised during mining.
  - The geology and gold distribution of both deposits is well understood.
  - Resource drilling in both Orelia and Julius has been undertaken at close spacing resulting in high confidence in the mineralisation and gold distribution. Approximately 86% of gold in reserve at Julius and 52% at Orelia is in the Proven category.
  - The reserve models used for mine planning have been externally reviewed and amended based upon feedback.
- Metallurgical risk – There is a risk that modelled gold recovery will be lower and reagent consumption costs higher than anticipated.
  - Extensive metallurgical test work and modelling together with historical performance has informed the assumptions used to generate costs and estimate throughput rates.
  - Orelia ore has been treated previously at Bronzewing so its processing performance and gold recoveries are well understood with the most recent test work results comparative to historical results.
- Operating Cost risk – There is a risk that operating costs will be higher than anticipated reducing free cash flow for debt servicing.
  - The BFS estimates were developed from reputable contractor tender rates, supplier and minor contractor quotes and cross referenced with similar projects.
  - Information from previous mining and processing at Orelia has been used to support cost estimates reducing the risk of underestimation.
- Capital Cost risk – There is a risk that the capital cost to redevelop the Project will be exceeded.
  - The refurbishment of the Bronzewing plant accounts for 51% of the capital cost to redevelop the Project (excluding contingency). The scope and tendered price have been supported by three site visits and a number of scope clarification meetings. Both the scope of work and price estimate are considered thorough and the risk of scope and price growth is considered low.
- Funding risk – There is a risk that raising sufficient debt and equity on commercially acceptable terms will not be achieved.
  - A number of bank and non-bank debt financing institutions have submitted term sheets showing strong support for debt financing for the Project. Based on the indicative terms sheets it is expected that debt with acceptable commercial terms will be available to develop the Project.
  - The Project requires a modest amount of equity as the rapid payback and strong initial cash flow support a higher level of debt financing.
- Mine Life risk – a mine life of 4 years is short.
  - Previously defined and partially drilled opportunities exist within Echo's tenements which require additional work to assess whether these can be readily brought into the mine plan.
  - Deposits owned by third parties could be brought into the mine plan through purchase, joint venture or toll treatment.



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Appendix 2 – JORC Code (2012) Tables and additional Information

Global Mineral Resources and Reserves

MINERAL RESOURCES Resource adjusted for ownership %	Ownership	Cut of Grade	MEASURED			INDICATED			INFERRED			TOTAL RESOURCES		
	% EAR	(g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)
JULIUS[1]	100%	0.8	1.8	2.1	121,140	1.8	1.3	77,313	1.5	2.0	96,743	5.2	1.8	295,196
ORELIA[1]	100%	1.0	2.8	2.6	237,000	11.2	2	732,000	1.9	1.7	101,000	15.9	2.1	1,070,000
REGIONAL[2]	100%	0.5	-	-	-	-	-	-	2.8	1.5	134,925	2.8	1.5	134,925
CORBOYS[3]	100%	1.0	-	-	-	1.7	1.8	96,992	0.5	1.8	28,739	2.2	1.8	125,731
WOORANA NORTH[4]	100%	0.5	-	-	-	0.3	1.4	13,811	-	-	-	0.3	1.4	13,811
WOORANA SOUTH[4]	100%	0.5	-	-	-	0.1	1	3,129	-	-	-	0.1	1	3,129
FAT LADY[4]	70%	0.5	-	-	-	0.7	0.9	19,669	-	-	-	0.7	0.9	19,669
MT JOEL[4]	70%	0.5	-	-	-	0.2	1.7	10,643	-	-	-	0.2	1.7	10,643
TOTAL MINERAL RESOURCES[6]			**4.6**	**2.4**	**358,140**	**16.0**	**1.9**	**953,557**	**6.7**	**1.7**	**361,407**	**27.4**	**1.9**	**1,673,104**

ORE RESERVE	Ownership	Cut of Grade	PROVED			PROBABLE			TOTAL		
	% EAR	(g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)	Tonnes (Mt)	Grade (g/t Au)	Ounces (Au)
JULIUS (Stage 1 BFS)[5]	100%	0.8	0.8	2.3	59,887	0.2	1.7	9,183	1.0	2.2	69,070
ORELIA (Stage 1 BFS)[5]	100%	0.6	2.5	2.2	178,781	3.4	1.5	163,807	6.0	1.8	342,588
TOTAL STAGE 1 (BFS)			**3.3**	**2.2**	**238,668**	**3.6**	**1.5**	**172,991**	**6.9**	**1.8**	**411,658**
JULIUS (Stage 2 PFS)[6]	100%	0.8	0.7	1.6	38,495	0.0	1.4	2,006	0.8	1.6	40,501
ORELIA (Stage 2 PFS)[6]	100%	0.6	1.1	1.5	55,047	7.2	1.3	312,363	8.4	1.4	367,410
TOTAL STAGE 2 (PFS)			**1.9**	**1.5**	**93,542**	**7.2**	**1.3**	**314,369**	**9.1**	**1.4**	**407,911**
TOTAL ORE RESERVE			**5.2**	**2.0**	**332,210**	**10.8**	**1.4**	**487,359**	**16.0**	**1.6**	**819,569**

ROUNDING ERRORS MAY OCCUR

NOTE:

1. Resources estimated by Mr Lynn Widenbar (refer to Competent Persons Statements) in accordance with JORC Code 2012. For full Mineral Resource estimate details refer to the Echo Resources Limited announcement to ASX on 7 September 2017, 14 June 2018 and 23 April 2019. Echo Resources Limited is not aware of any new information or data that materially affects the information included in the previous announcement, and all material assumptions and technical parameters underpinning mineral resource estimates in the previous announcement continue to apply and have not materially changed.

2. Resource estimates include Bills Find, Shady Well, Orpheus, Empire and Tipperary Well and were estimated by Golders (refer to Competent Persons Statements) in accordance with JORC Code 2004, for full details of the Mineral Resource estimates refer to the Echo Resources Limited prospectus released to ASX on 10 April 2006.

3. Resources estimated by HGS (refer to Competent Persons Statements) in accordance with JORC Code 2012. For full Mineral Resource estimate details refer to the Metaliko Resources Limited announcement to ASX on 23 August 2016. Echo is not aware of any new information or data that materially affects the information included in the previous announcement, and all material assumptions and technical parameters underpinning mineral resource estimates in the previous announcement continue to apply and have not materially changed.

4. Resources estimated by Coxrocks (refer to Competent Persons Statements) in accordance with JORC Code 2012. For full Mineral Resource estimate details refer to the Metaliko Resources Limited announcement to ASX on 1 September 2016. Echo is not aware of any new information or data that materially affects the information included in the previous announcement, and all material assumptions and technical parameters underpinning mineral resource estimates in the previous announcement continue to apply and have not materially changed.

5. Reserve estimated by Mr Stuart Cruickshanks (refer to Competent Persons Statements) in accordance with JORC Code 2012, for full details of the Ore Reserve estimate refer to the Echo Resources Limited announcement to ASX on 27 November 2017 and 23 April 2019. Echo Resources Limited is not aware of any new information or data that materially affects the information included in the previous announcement, and all material assumptions and technical parameters underpinning Ore Reserve estimate in the previous announcement continue to apply and have not materially changed.

6. Reserve estimated by Mr Jim Moore (refer to Competent Persons Statements) in accordance with JORC Code 2012, for full details of the Ore Reserve estimate refer to the Echo Resources Limited announcement to ASX on 23 April 2019. Echo Resources Limited is not aware of any new information or data that materially affects the information included in the previous announcement, and all material assumptions and technical parameters underpinning Ore Reserve estimate in the previous announcement continue to apply and have not materially changed.

7. Mineral Resources are inclusive of Ore Reserves.

Forward Looking Statements

This announcement includes certain 'forward looking statements'. All statements, other than statements of historical fact, are forward looking statements that involve various risks and uncertainties. There can be no assurances that such statements will prove accurate, and actual results and future events could differ materially from those anticipated in such statements. Such information contained herein represents management's best judgement as of the date hereof based on information currently available. The Company does not assume any obligation to update any forward-looking statement.

Competent Persons' Declarations

The information in this report relating to Resource Estimation is based on information compiled by Mr Lynn Widenbar, a consultant of Echo Resources Limited, who is a member of the Australasian Institute of Mining and Metallurgy. The information in this announcement that relates to Exploration Results and metallurgical considerations is based on information compiled by Travis Craig, General Manager Geology - Echo Resources and a member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Widenbar consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this announcement that relates to ore reserves is based on, and fairly represents, information and supporting documentation prepared by Mr Stuart Cruickshanks & Mr Jim Moore, independent specialist mining consultants. Mr Cruickshanks & Mr Moore are Fellows of the Australian Institute of Mining and Metallurgy. Mr Cruickshanks & Mr Moore have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Cruickshanks & Mr Moore have reviewed the contents of this news release and consent to the inclusion in this announcement of all technical statements based on their information in the form and context in which they appear.

Cautionary Statement

The Ore Reserve estimate referred to in this announcement is based on a Proved and Probable Ore Reserve derived from Measured and Indicated Resources. No inferred Resource material has been included in the estimation of Reserves. The Company advises that Proved and Probable Ore Reserves provides 100% of the total tonnage. There is no dependence on non-Ore Reserve material. No Inferred Mineral Resource material is included in the life of mine plan. Echo has concluded it has reasonable basis for providing the forward-looking statements included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and Material Assumptions are disclosed.

References in this announcement to the August 2018 Bankable Feasibility Study is a reference to the Company's ASX Announcement dated 6 August 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of reporting of Mineral Resources and results of the BFS that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcement.

Section 4 Estimation and Reporting of Ore Reserves -JULIUS Stage 1

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The ore Reserve estimate has been based on the Mineral Resource estimate from Widenbar and Associates dated October 2018 (5.18Mt @ 1.77g/t Au) This resource is for all of Julius while this reserve statement applies only to Julius Stage 1.The Mineral Resources have been reported inclusive of the Ore Reserves estimated and stated here.
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.*	• Stuart Cruickshanks has visited site in March 2017. During this visit the various deposit areas were inspected with particular interest in access evaluation and practical consideration for mining of open pit in the local terrain. Diamond core of the mineralised zones were also inspected to inform assumptions on selectivity of mining.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• Work to a Feasibility Study level based on refurbishing the Bronzewing CIL processing plant has been undertaken in order to enable the Mineral Resources to be converted to Ore Reserves stated here. • The study was carried out internally and externally using consultants when appropriate.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The cut-off grades used in the estimation of these Ore Reserves is the non-mining, break-even gold grade taking into account mining recovery and dilution, metallurgical recovery, site operating costs, royalties and revenues. • Cut-off is calculated as part of the mine optimisation evaluation and equates to 0.80g/t Au for the Julius Deposit
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.*	• Appropriate factors determined during the course of the Feasibility study were applied to the Mineral Resources by Lerchs Grossman optimization methodology. Detailed pit designs were then carried out on the selected optimized pit shells and Ore Reserves reported from these designs. • Conventional open pit mining techniques using drill and blast with material movement by hydraulic excavator and trucks will be employed. The project scale and selectivity would suit 120 t – 200 t class excavators in a backhoe configuration matched to 95 t class mine haul trucks and applicable ancillary equipment. To suit this sized equipment a bench height of 5m has been adopted. The benches will be excavated on 2 x 2.5 m high flitches, for blasted material this will be 2 x 3 m high flitches when swell is accounted for.

Criteria	JORC Code explanation	Commentary
	• *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	Geotechnical assessments of open pit mining of the Julius pit have been carried out by independent consultant, Tim Green. The assessment provided base case wall design parameters for open pit mining evaluation. • Grade control sample collection by reverse circulation drilling has been allowed for in the Feasibility Study. • To estimate the mining loss and dilution for the Mineral Resources ore reserves block models were prepared by averaging the grades of the ore and non-ore proportions across model block volumes for all elements reported in the resource model. This has effectively diluted the ore with the adjacent non-ore blocks and so simulating mining dilution based on the parent block sizes 2.5m x 5m x 2.5m for the Julius deposit. • All gold grades reported in this estimate refer to these diluted grades. Mining ore losses result from blocks with small ore proportions which are effectively diluted to the extent that the average grade is below the economic cut off of the reported Ore Reserves. • No Inferred Mineral Resources have been used in the studies. All Inferred Mineral Resources are treated as waste in the mining studies. • Infrastructure to support the mining operations has been allowed for. This includes: - Mine haul roads and access roads - ROM Stock piles area adjacent to the pit exits - Haulage roads from the pits to the process plant - Waste rock dumps - Mine services area including workshop, warehouse, offices, and fuel storage and dispensing. - Diesel power generation - Mine accommodation village - Surface water management and pit dewatering infrastructure
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*	• The feasibility study has been based on conventional CIL process which is well proven technology. The project is based on refurbishing the Bronzewing plant which has proven operating history. • Well tested existing metallurgical technology and in addition to historical metallurgical and process plant operating history, Feasibility level metallurgical test work programme has been undertaken. • Metallurgical samples representing know mineralogical domains, grade ranges and oxidation profiles have been included are deemed to be representative of the Julius deposit. • No deleterious elements have been detected. • For the Julius deposit, no bulk sampling has been undertaken - all samples have been sourced from diamond drill core as is appropriate

Criteria	JORC Code explanation	Commentary
	• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	for this style of mineralization.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• A Mining Proposal, Mine Closure Plan and Clearing permit has been approved by the DMIRS. • Waste rock is typically non-acid forming. • No tailings will be stored on site. • Environmental and Social Impact Assessment has been completed for the project.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Feasibility study has estimated the cost to upgrade/install the necessary infrastructure to support the project. This Includes: - Upgrading access roads - Water collection via surface water runoff collection from large catchment, pit dewatering and groundwater bores, and a storage dam - Power supply by diesel generators - Processing plant and Tailings storage facility. - Accommodation village, offices and other necessary buildings • A majority of the infrastructure exists and is in good working order at the Bronzewing site.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Capital costs for the process plant and associated infrastructure have been estimated to the required level of accuracy for a Feasibility Study by Mintrex Pty Ltd. Capital costs for mining related infrastructure have been source from quotations and tendered rates sourced from contract mining companies active in the West Australian goldfields. • Process and general and administration operating costs were developed by Mintrex Pty Ltd. Costs were estimated from first principles based on reagent consumptions and consumable usage rates determined from test work. Power cost estimate is based diesel generators. Labour rates were benchmarked against existing operations. • Mining operating costs were sourced from quotations and tendered rates received from mining contracting companies active in Western Australia. • Transportation and refining charges have been accounted for. Government Royalties are payable as per the Mining Code of Western Australia. A royalty of 2.5% is payable on revenue, with a further 3.6% privately held NSR royalty is payable on ore processed through the Bronzewing Mill.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and*	• No factors were applied in the application of the metal prices stated in the above section. • The head grades as reported in these estimates were not factored. Mining dilution and recoveries

Criteria	JORC Code explanation	Commentary
	treatment charges, penalties, net smelter returns, etc. • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	were taken into account as modelled/discussed elsewhere in this statement and as such no further factors were considered appropriate and were therefore not applied • A gold price of AU$1600/oz based on analyst consensus has been used for the Ore Reserve estimate.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• The product of this mine is a precious metal and the stated methodology of applying the metal price is considered to be adequate and appropriate. No major market factors are anticipated or known at the time of reporting, to provide a reason for adjusting this assumption.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Inputs to the economic analysis were: - Mine production schedule, including gold production schedule, produced as part of the Feasibility study. - Mine operating costs, process operating costs and general and administrative costs as stated above. - Gold price of $1800/oz. - Applicable royalties and taxes and duties per the mining code of Western Australia - Discount rate of 8% The Project's sensitivity to various inputs were also investigated. The Project is most sensitive to gold price. However the project value remained positive up to a 20% reduction in gold price.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Stakeholders have been consulted • Land Access Native Title Agreement and State Deed has been signed.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • No material naturally occurring risks have been identified to the Project. • Gold produced from the Julius gold deposit will be sold on the spot market, to the extent that any possible future hedging obligations have been repaid. • A royalty of 2.5% is payable to the Western Australian state government and a 3.6% is payable to third parties. • The Julius deposit is located on a granted mining lease and a project management plan and mining proposal have been submitted to the DMIRS and have been approved. • Discussions are ongoing with regards the most favorable ore haulage route.

Criteria	JORC Code explanation	Commentary
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Ore Reserves which have been reported as Proved have been derived directly from the Mineral resource classified at the Measured level of confidence. • Ore Reserves which have been reported as Probable have been derived directly from the Mineral resource classified at the Indicated level of confidence. • No Mineral Resources classified at the Inferred level of confidence are included in these estimated Ore Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of the technical and economic studies
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• Internal audits and reviews of Ore Reserve estimates have been undertaken to date and there have been no issues identified.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• In the estimating of these Ore Reserves, the confidence levels as expressed in the Mineral Resource estimates have been accepted in the respective resource classification categories. • The Ore Reserves estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to the spacing of the drill data on which the estimates are based, relative to the intended local selectivity of the mining operations. • Accuracy and confidence of modifying factors are generally consistent with the current level of this study. The modifying factors applied in the estimation of the Ore Reserves are considered to be of a sufficiently high level of confidence not to have a material impact on the viability of the estimated Ore Reserves.

Orelia Stage 1 Reserve

Section 4 Estimation and Reporting of Ore Reserves – ORELIA STAGE1

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The ore Reserve estimate has been based on the Mineral Resource estimate as announced to ASX by Echo on 14 June 2018 (15.9Mt @ 2.1g/t Au), see Section 3 JORC Table above. • The Mineral Resource for Orelia has been reported inclusive of the Ore Reserve estimation stated here.
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.*	• Stuart Cruickshanks visited site in March 2017. During this visit the various deposit areas were inspected with particular interest in access evaluation and practical consideration for mining of open pit in the local terrain. Diamond core of the mineralised zones were also inspected to inform assumptions on selectivity of mining.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• Work to a Feasibility Study level based on refurbishing the Bronzewing CIL processing plant has been undertaken in order to enable the Mineral Resources to be converted to Ore Reserves stated here. • The study was carried out internally and externally using consultants when appropriate.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The cut-off grades used in the estimation of this Ore Reserve is the non-mining, break-even gold grade taking into account mining recovery and dilution, metallurgical recovery, site operating costs, royalties and revenues. • The calculated cut-off grade for the Orelia deposit is 0.60g/t Au.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made*	• Appropriate factors determined during the course of the Feasibility study were applied to the Mineral Resources by Lerchs Grossman optimization methodology. Detailed pit designs were then carried out on the selected optimized pit shells and Ore Reserves reported from these designs. • Conventional open pit mining techniques using drill and blast with material movement by hydraulic excavator and trucks will be employed. The project scale and selectivity would suit 120 t – 200 t class excavators in a backhoe configuration matched to 95 t class mine haul trucks and applicable ancillary equipment. To suit this sized equipment a bench height of 5m has been adopted. The benches will be excavated on 2 x 2.5 m high flitches, for blasted material this will be 2 x 3 m high flitches when swell is accounted for.

Criteria	JORC Code explanation	Commentary
	and Mineral Resource model used for pit and stope optimisation (if appropriate). • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	Geotechnical assessments of open pit mining of the Orelia pit have been carried out by Peter O'Bryan and Associates. The assessment provided base case wall design parameters for open pit mining evaluation. • Grade control sample collection by reverse circulation drilling has been allowed for in the Feasibility Study. • The mineral resource modelling was carried out within a broad 0.2g/t envelope that included internal waste in the estimate in effect accounting for internal dilution. Additionally, a 0.5m dilutionary skin was modelled to account for edge dilution to the ore zone due to blasting and excavation tolerances. This resulted in dilution added to Ore tonnes of 7.6% and a corresponding reduction in gold grade. Any isolated ore block in the model were also removed from the Ore Reserve estimate accounting for mining losses. • All gold grades reported in this estimate refer to these diluted grades. Mining ore losses result from blocks with small ore proportions which are effectively diluted to the extent that the average grade is below the economic cut off of the reported Ore Reserves. • No Inferred Mineral Resources have been used in the studies. All Inferred Mineral Resources are treated as waste in the mining studies. • Infrastructure to support the mining operations has been allowed for. This includes: - Mine haul roads and access roads - ROM Stock piles area adjacent to the pit exits - Haulage roads from the pits to the process plant - Waste rock dumps - Mine services area including workshop, warehouse, offices, and fuel storage and dispensing. - Diesel power generation - Mine accommodation village - Surface water management and pit dewatering infrastructure
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors*	• The feasibility study has been based on conventional CIL process which is well proven technology. The project is based on refurbishing the Bronzewing plant which has proven operating history including processing ore from the Orelia deposit. • In addition to historical metallurgical and process plant operating history, a Feasibility level metallurgical test work programme has been undertaken. • Metallurgical samples representing know mineralogical domains, grade ranges and oxidation profiles have been included are deemed to be representative of the project's

Criteria	JORC Code explanation	Commentary
	applied. • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	deposits. • No deleterious elements have been detected. • For the Orelia deposit, historical performance from processing has been used in addition to samples sourced from diamond core.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Environmental and Social Impact Assessment has been completed for a project. • The Orelia open pit is located on a granted mining lease and was previously mined in 2013, however, the mine is currently on 'care and maintenance', and an updated project management plan and updated mining proposal has been approved and no impediments to the restarting of mining are known to exist.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Feasibility study has estimated the cost to upgrade/install the necessary infrastructure to support the project. This Includes: - Upgrading access roads - Water collection via surface water runoff collection from large catchment, pit dewatering and groundwater bores, and a storage dam - Power supply by diesel generators - Processing plant and Tailings storage facility. - Accommodation village, offices and other necessary buildings • A majority of the infrastructure exists and is in good working order at the Bronzewing site.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Capital costs for the process plant and associated infrastructure have been estimated to the required level of accuracy for a Feasibility Study by Mintrex Pty Ltd. Capital costs for mining related infrastructure have been source from quotations and tendered rates sourced from contract mining companies active in the West Australian goldfields. • Process and general and administration operating costs were developed by Mintrex Pty Ltd. And further updated by the Company. Costs were estimated from first principles based on reagent consumptions and consumable usage rates determined from test work. Power cost estimate is based diesel generators. Labour rates were benchmarked against existing operations. • Mining operating costs were sourced from quotations and tendered rates received from

Criteria	JORC Code explanation	Commentary
		mining contracting companies active in Western Australia. • Transportation and refining charges have been accounted for. • Government Royalties are payable as per the Mining Code of Western Australia. A royalty of 2.5% is payable on revenue, with a further 3% privately held NSR royalty is payable on ore processed through the Bronzewing Mill.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• No factors were applied in the application of the metal prices stated in the above section. • The head grades as reported in these estimates were not factored. Mining dilution and recoveries were taken into account as modelled/discussed elsewhere in this statement and as such no further factors were considered appropriate and were therefore not applied • A gold price of AU$1600/oz based on analyst consensus has been used for the Ore Reserve estimate.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• The product of this mine is a precious metal and the stated methodology of applying the metal price is considered to be adequate and appropriate. No major market factors are anticipated or known at the time of reporting, to provide a reason for adjusting this assumption.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Inputs to the economic analysis were: - Mine production schedule, including gold production schedule, produced as part of the Feasibility study. - Mine operating costs, process operating costs and general and administrative costs as stated above. - Gold price as stated above. - Applicable royalties and taxes and duties per the mining code of Western Australia - Discount rate of 8% • The Project's sensitivity to various inputs were also investigated. The Project is most sensitive to gold price. However, the project value remained positive up to a 20% reduction in gold price.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Consultation and engagement has occurred with the local community, appropriate land councils and shire councils in the area, and along with the DMIRS.

Criteria	JORC Code explanation	Commentary
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • No material naturally occurring risks have been identified to the Project. • Gold produced from the Orelia gold deposit will be sold on the spot market, to the extent that any possible future hedging obligations have been repaid. • A royalty of 2.5% is payable to the Western Australian state government and a 3% is payable to third parties. • The Orelia open pit is located on a granted mining lease and was previously mined in 2013, however, the mine is currently on 'care and maintenance'. An updated project management plan and mining proposal has been approved.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Ore Reserves which have been reported as Proved have been derived directly from the Mineral resource classified at the Measured level of confidence. Ore Reserves reported as Probable have been derived from the Mineral resource classified at the Measured and Indicated level of confidence. • No Mineral Resources classified at the Inferred level of confidence are included in these estimated Ore Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of the technical and economic studies •
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No audits or reviews of Ore Reserve estimates have been undertaken to date.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy*	• In the estimating of these Ore Reserves, the confidence levels as expressed in the Mineral Resource estimates have been accepted in the respective resource classification categories. • The Ore Reserves estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to the spacing of the drill data on which the estimates are based, relative to the intended local selectivity of the mining operations. • Accuracy and confidence of modifying factors are generally consistent with the current level of this study. The modifying factors applied in the estimation of the Ore Reserves are considered to be of a sufficiently high level of

Criteria	JORC Code explanation	Commentary
	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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	confidence not to have a material impact on the viability of the estimated Ore Reserves

Julius Stage 2 Reserve

JORC Code, 2012 Edition – Table 1

Section 4 Estimation and Reporting of Ore Reserves for Julius Stage 2

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The ore Reserve estimate has been based on the Mineral Resource estimate from Widenbar and Associates dated October 2018 (5.18Mt @ 1.77g/t Au). This resource is for all of Julius while this reserve statement applies only to Julius Stage 2. • The Mineral Resources for the deposit are reported inclusive of the Ore Reserves estimated and stated here.
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.*	• Jim Moore has not visited site. • This table has been compiled with reference to previous experience within the goldfields over 20 years, working closely with the technical teams from Echo and the previous competent person, Stuart Cruickshanks who visited the site in Mar17.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and*	• Work to a Feasibility Study level based on refurbishing the Bronzewing CIL processing plant has been undertaken in order to enable the Mineral Resources to be converted to Ore Reserves stated here. • The study was carried out internally and externally using consultants when appropriate.

Criteria	JORC Code explanation	Commentary
	economically viable, and that material Modifying Factors have been considered.	
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The cut-off grades used in the estimation of these Ore Reserves is the non-mining, break-even gold grade taking into account mining recovery and dilution, metallurgical recovery, site operating costs, royalties and revenues. • Cut-off is calculated as part of the mine optimisation evaluation and equates to 0.80g/t Au for the Julius Deposit
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Appropriate factors determined during the course of the Feasibility study were applied to the Mineral Resources by Lerchs Grossman optimization methodology. Detailed pit designs were then carried out on the selected optimized pit shells and Ore Reserves reported from these designs. • Conventional open pit mining techniques using drill and blast with material movement by hydraulic excavator and trucks will be employed. The project scale and selectivity would suit 120 t – 200 t class excavators in a backhoe configuration matched to 95 t class mine haul trucks and applicable ancillary equipment. To suit this sized equipment a bench height of 5m has been adopted. The benches will be excavated on 2 x 2.5 m high flitches, for blasted material this will be 2 x 3 m high flitches when swell is accounted for. Geotechnical assessments of open pit mining of the Julius pit have been carried out by independent consultant, Tim Green. The assessment provided base case wall design parameters for open pit mining evaluation. • Grade control sample collection by reverse circulation drilling has been allowed for in the Feasibility Study. • To estimate the mining loss and dilution for the Mineral Resources ore reserves block models were prepared by averaging the grades of the ore and non-ore proportions across model block volumes for all elements reported in the resource model. This has effectively diluted the ore with the adjacent non-ore blocks and so simulating mining dilution based on the parent block sizes 2.5m x 5m x 2.5m for the Julius deposit. • All gold grades reported in this estimate refer to these diluted grades. Mining ore losses result from blocks with small ore proportions which are effectively diluted to the extent that the average grade is below the economic cut off of the reported Ore Reserves. • No Inferred Mineral Resources have been used in the studies. All Inferred Mineral Resources are treated as waste in the mining studies. • Infrastructure to support the mining operations has been allowed for. This includes:

Criteria	JORC Code explanation	Commentary
		- Mine haul roads and access roads - ROM Stock piles area adjacent to the pit exits - Haulage roads from the pits to the process plant - Waste rock dumps - Mine services area including workshop, warehouse, offices, and fuel storage and dispensing. - Diesel power generation - Mine accommodation village - Surface water management and pit dewatering infrastructure
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The feasibility study has been based on conventional CIL process which is well proven technology. The project is based on refurbishing the Bronzewing plant which has proven operating history. • Well tested existing metallurgical technology and in addition to historical metallurgical and process plant operating history, Feasibility level metallurgical test work programme has been undertaken. • Metallurgical samples representing know mineralogical domains, grade ranges and oxidation profiles have been included are deemed to be representative of the Julius deposit. • No deleterious elements have been detected. • For the Julius deposit, no bulk sampling has been undertaken - all samples have been source from diamond drill core as is appropriate for this style of mineralization.
Environmen-tal	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• A Mining Proposal, Mine Closure Plan and Clearing permit has been approved by the DMIRS. • Waste rock is typically non-acid forming. • No tailings will be stored on site. • Environmental and Social Impact Assessment has been completed for the project.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Feasibility study has estimated the cost to upgrade/install the necessary infrastructure to support the project. This Includes: - Upgrading access roads - Water collection via surface water runoff collection from large catchment, pit dewatering and groundwater bores, and a storage dam - Power supply by diesel generators - Processing plant and Tailings storage facility. - Accommodation village, offices and other necessary buildings • A majority of the infrastructure exists and is in good working order at the Bronzewing site.

Criteria	JORC Code explanation	Commentary
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Capital costs for the process plant and associated infrastructure have been estimated to the required level of accuracy for a Feasibility Study by Mintrex Pty Ltd . Capital costs for mining related infrastructure have been source from quotations and tendered rates sourced from contract mining companies active in the West Australian goldfields. • Process and general and administration operating costs were developed by Mintrex Pty Ltd , with further assessment and quotations sourced by Echo personnel for validity of these costs. Costs were estimated from first principles based on reagent consumptions and consumable usage rates determined from test work. Power cost estimate is based diesel generators. Labour rates were benchmarked against existing operations. • Mining operating costs were sourced from quotations and tendered rates received from mining contracting companies active in Western Australia. • Transportation and refining charges have been accounted for. • Government Royalties are payable as per the Mining Code of Western Australia. A royalty of 2.5% is payable on revenue, with a further 3.6% privately held NSR royalty is payable on ore processed through the Bronzewing Mill.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• No factors were applied in the application of the metal prices stated in the above section. • The head grades as reported in these estimates were not factored. Mining dilution and recoveries were taken into account as modelled/discussed elsewhere in this statement and as such no further factors were considered appropriate and were therefore not applied • A gold price of AU$1800/oz based on analyst consensus has been used for the Ore Reserve estimate.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• The product of this mine is a precious metal and the stated methodology of applying the metal price is considered to be adequate and appropriate. No major market factors are anticipated or known at the time of reporting, to provide a reason for adjusting this assumption.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these*	• Inputs to the economic analysis were:

Criteria	JORC Code explanation	Commentary
	economic inputs including estimated inflation, discount rate, etc. • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	- Mine production schedule, including gold production schedule, produced as part of the Feasibility study. - Mine operating costs, process operating costs and general and administrative costs as stated above. - Gold price as stated above. - Applicable royalties and taxes and duties per the mining code of Western Australia - Discount rate of 8% • The Project's sensitivity to various inputs were also investigated. The Project is most sensitive to gold price.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Stakeholders have been consulted • Land Access Native Title Agreement and State Deed has been signed.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • No material naturally occurring risks have been identified to the Project. • Gold produced from the Julius gold deposit will be sold on the spot market, to the extent that any possible future hedging obligations have been repaid. • A royalty of 2.5% is payable to the Western Australian state government and a 3.6% is payable to third parties. • The Julius deposit is located on a granted mining lease and a project management plan and mining proposal have been submitted to the DMIRS and have been approved. •
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Ore Reserves which have been reported as Proved have been derived directly from the Mineral resource classified at the Measured level of confidence. • Ore Reserves which have been reported as Probable have been derived directly from the Mineral resource classified at the Indicated level of confidence. • No Mineral Resources classified at the Inferred level of confidence are included in these estimated Ore Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the outcome of the technical and economic studies
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• Internal audits and reviews of Ore Reserve estimates have been undertaken to date and there have been no issues identified.
Discussion of relative	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the*	• In the estimating of these Ore Reserves, the confidence levels as expressed in the Mineral Resource estimates have been accepted in the respective resource classification

Criteria	JORC Code explanation	Commentary
accuracy/ confidence	*Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	categories. • The Ore Reserves estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to the spacing of the drill data on which the estimates are based, relative to the intended local selectivity of the mining operations. • Accuracy and confidence of modifying factors are generally consistent with the current level of this study. The modifying factors applied in the estimation of the Ore Reserves are considered to be of a sufficiently high level of confidence not to have a material impact on the viability of the estimated Ore Reserves.

Orelia Stage 2 Reserve

JORC Code, 2012 Edition – Table 1

Section 4 Estimation and Reporting of Ore Reserves for Orelia Stage 2

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The ore Reserve estimate has been based on the Mineral Resource estimate from Widenbar and Associates dated June 2018 (15.9Mt @ 2.10g/t Au). This resource is for all of Orelia while this reserve statement applies only to Orelia Stage 2. • The Mineral Resources for the deposit are reported inclusive of the Ore Reserves estimated and stated here.
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.*	• Jim Moore has not visited site. • This table has been compiled with reference to previous experience within the goldfields over 20 years, working closely with the technical teams from Echo and the previous competent person, Stuart Cruickshanks who visited the site in Mar17.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine*	• Work to a Feasibility Study level based on refurbishing the Bronzewing CIL processing plant has been undertaken in order to enable the Mineral Resources to be converted to Ore Reserves stated here. • The study was carried out internally and externally using consultants when appropriate.

Criteria	JORC Code explanation	Commentary
	plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• The cut-off grades used in the estimation of these Ore Reserves is the non-mining, break-even gold grade taking into account mining recovery and dilution, metallurgical recovery, site operating costs, royalties and revenues. • Cut-off is calculated as part of the mine optimisation evaluation and equates to 0.60g/t Au for the Orelia Deposit
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Appropriate factors determined during the course of the Feasibility study were applied to the Mineral Resources by Lerchs Grossman optimization methodology. Detailed pit designs were then carried out on the selected optimized pit shells and Ore Reserves reported from these designs. • Conventional open pit mining techniques using drill and blast with material movement by hydraulic excavator and trucks will be employed. The project scale and selectivity would suit 120 t – 200 t class excavators in a backhoe configuration matched to 95 t class mine haul trucks and applicable ancillary equipment. To suit this sized equipment a bench height of 5m has been adopted. The benches will be excavated on 2 x 2.5 m high flitches, for blasted material this will be 2 x 3 m high flitches when swell is accounted for. Geotechnical assessments of open pit mining of the Orelia pit have been carried out by independent consultant, Peter O'Bryan and Associates. The assessment provided base case wall design parameters for open pit mining evaluation. • Grade control sample collection by reverse circulation drilling has been allowed for in the Feasibility Study. • To estimate the mining loss and dilution for the Mineral Resources ore reserves block models were prepared by averaging the grades of the ore and non-ore proportions across model block volumes for all elements reported in the resource model. Factors for mining dilution and ore loss have been applied to the Mineral Resource model to reflect the effect mining practises will have. An increase of 7.6% on ore tonnes and reduction on grade of 7.3% has been applied to the global Mineral Resource to replicate this effect. • • All gold grades reported in this estimate refer to these diluted grades. Mining ore losses result from blocks with small ore proportions which are effectively diluted to the extent that the average grade is below the economic cut off of the reported Ore Reserves. • No Inferred Mineral Resources have been

Criteria	JORC Code explanation	Commentary
		used in the studies. All Inferred Mineral Resources are treated as waste in the mining studies. • Infrastructure to support the mining operations has been allowed for. This includes: - Mine haul roads and access roads - ROM Stock piles area adjacent to the pit exits - Haulage roads from the pits to the process plant - Waste rock dumps - Mine services area including workshop, warehouse, offices, and fuel storage and dispensing. - Diesel power generation - Mine accommodation village - Surface water management and pit dewatering infrastructure
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The feasibility study has been based on conventional CIL process which is well proven technology. The project is based on refurbishing the Bronzewing plant which has proven operating history. • In addition to historical metallurgical and process plant operating history, a Feasibility level metallurgical test work programme has been undertaken. • Metallurgical samples representing know mineralogical domains, grade ranges and oxidation profiles have been included are deemed to be representative of the project's deposits. • No deleterious elements have been detected. • For the Orelia deposit, historical performance from processing has been used in addition to samples sourced from diamond core.
Environmen-tal	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Environmental and Social Impact Assessment has been completed for a project. • The Orelia open pit is located on a granted mining lease and was previously mined in 2013 however the mine is currently on 'care and maintenance', An updated project management plan and mining proposal, has been approved for stage 1 of mining at Orelia. There is a requirement for further approvals to be granted for stage 2 no impediments to the restarting of mining are known to exist.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can*	• The Feasibility study has estimated the cost to upgrade/install the necessary infrastructure to support the project. This Includes: - Upgrading access roads

Criteria	JORC Code explanation	Commentary
	be provided, or accessed.	- Water collection via surface water runoff collection from large catchment, pit dewatering and groundwater bores, and a storage dam - Power supply by diesel generators - Processing plant and Tailings storage facility. - Accommodation village, offices and other necessary buildings • A majority of the infrastructure exists and is in good working order at the Bronzewing site.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• Capital costs for the process plant and associated infrastructure have been estimated to the required level of accuracy for a Feasibility Study by Mintrex Pty Ltd. Capital costs for mining related infrastructure have been sourced from quotations and tendered rates sourced from contract mining companies active in the West Australian goldfields. • Process and general and administration operating costs were developed by Mintrex Pty Ltd, with further assessment and quotations sourced by Echo personnel for validity of these costs. Costs were estimated from first principles based on reagent consumptions and consumable usage rates determined from test work. Power cost estimate is based diesel generators. Labour rates were benchmarked against existing operations. • Mining operating costs were sourced from quotations and tendered rates received from mining contracting companies active in Western Australia. • Transportation and refining charges have been accounted for. • Government Royalties are payable as per the Mining Code of Western Australia. A royalty of 2.5% is payable on revenue, with a further 3.6% privately held NSR royalty is payable on ore processed through the Bronzewing Mill.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• No factors were applied in the application of the metal prices stated in the above section. • The head grades as reported in these estimates were not factored. Mining dilution and recoveries were taken into account as modelled/discussed elsewhere in this statement and as such no further factors were considered appropriate and were therefore not applied • A gold price of AU$1800/oz based on analyst consensus has been used for the Ore Reserve estimate.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*	• The product of this mine is a precious metal and the stated methodology of applying the metal price is considered to be adequate and appropriate. No major market factors are

Criteria	JORC Code explanation	Commentary
	• *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	anticipated or known at the time of reporting, to provide a reason for adjusting this assumption.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• Inputs to the economic analysis were: - Mine production schedule, including gold production schedule, produced as part of the Feasibility study. - Mine operating costs, process operating costs and general and administrative costs as stated above. - Gold price as stated above. - Applicable royalties and taxes and duties per the mining code of Western Australia - Discount rate of 8% • The Project's sensitivity to various inputs were also investigated. The Project is most sensitive to gold price.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• Consultation and engagement has occurred with the local community, appropriate land councils and shire councils in the area, and along with the DMIRS.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • No material naturally occurring risks have been identified to the Project. • Gold produced from the Orelia gold deposit will be sold on the spot market, to the extent that any possible future hedging obligations have been repaid. • A royalty of 2.5% is payable to the Western Australian state government and a 3.6% is payable to third parties. • The Orelia deposit is located on a granted mining lease and a project management plan and mining proposal have been submitted to the DMIRSand have been approved. •
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Ore Reserves which have been reported as Proved have been derived directly from the Mineral resource classified at the Measured level of confidence. • Ore Reserves which have been reported as Probable have been derived directly from the Mineral resource classified at the Indicated level of confidence. • No Mineral Resources classified at the Inferred level of confidence are included in these estimated Ore Reserves. • The Competent Person is satisfied that the stated Ore Reserve classification reflects the

Criteria	JORC Code explanation	Commentary
		outcome of the technical and economic studies
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• Internal audits and reviews of Ore Reserve estimates have been undertaken to date and there have been no issues identified.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *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.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• In the estimating of these Ore Reserves, the confidence levels as expressed in the Mineral Resource estimates have been accepted in the respective resource classification categories. • The Ore Reserves estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to the spacing of the drill data on which the estimates are based, relative to the intended local selectivity of the mining operations. • Accuracy and confidence of modifying factors are generally consistent with the current level of this study. The modifying factors applied in the estimation of the Ore Reserves are considered to be of a sufficiently high level of confidence not to have a material impact on the viability of the estimated Ore Reserves. Sensitivity analysis has shown that this proportion of the Ore Reserve remains economically viable over a wide range of pit slopes.

Julius Resource

JORC 2012 Table 1 2012 Edition

Section 1 Sampling Techniques and Data Julius Resource

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

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*	• 2006-2015 Drilling at Julius has comprised a total of 225 RC holes for 27.703 metres, 32 aircore holes for 1529 meters and 6 diamond holes for 1262 metres. • More Recent exploration at the Julius Gold Deposit resulted in the following total drilling at Julius:

Criteria	JORC Code explanation	Commentary
	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.	<table><tr><td>Hole Type</td><td>Number</td><td>Total Depth</td></tr><tr><td>AC</td><td>238</td><td>11,054</td></tr><tr><td>DDH</td><td>10</td><td>580</td></tr><tr><td>RAB</td><td>39</td><td>2,104</td></tr><tr><td>RC</td><td>293</td><td>35,550</td></tr><tr><td>RC (SLIM)</td><td>10</td><td>657</td></tr><tr><td>RCD</td><td>4</td><td>708</td></tr><tr><td>TOTAL</td><td>594</td><td>50,653</td></tr></table> <table><tr><td>Year Drilled</td><td>Number</td><td>Total Depth</td></tr><tr><td>2003</td><td>34</td><td>1,789</td></tr><tr><td>2006</td><td>71</td><td>5,881</td></tr><tr><td>2007</td><td>35</td><td>4,058</td></tr><tr><td>2008</td><td>33</td><td>4,078</td></tr><tr><td>2009</td><td>10</td><td>657</td></tr><tr><td>2010</td><td>11</td><td>1,343</td></tr><tr><td>2011</td><td>12</td><td>1,633</td></tr><tr><td>2012</td><td>6</td><td>583.0</td></tr><tr><td>2013</td><td>51</td><td>5,997</td></tr><tr><td>2014</td><td>25</td><td>2,366</td></tr><tr><td>2015</td><td>17</td><td>2,037</td></tr><tr><td>2016</td><td>200</td><td>12,040</td></tr><tr><td>2017</td><td>58</td><td>6,250</td></tr><tr><td>2018</td><td>31</td><td>1,940</td></tr><tr><td>TOTAL</td><td>594</td><td>50,653</td></tr></table> • Approximately 2-4kg of sample was collected from each metre for analysis by riffle splitting of the aircore sample interval collected via the rig cyclone. Onboard cone splitter for the RC and half diamond core for the HQ drilling. • Samples were 2 kilogram samples from the drill spoils collected. Drill hole collar locations were recorded by handheld GPS survey with accuracy +/-2 metres. • Initial analysis was conducted by submitting the 2kg sample whole for preparation by crushing, drying and pulverising at Nagrom Laboratories for gold analysis via Fire Assay/ICP. • Echo samples were analysed at Intertek. • A number of 4 metre composites were also collected in areas outside of the interpreted mineralised intervals.
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.).*	• Aircore drilling (4 inch), predominantly blade bit with hammer at the bottom of a number of holes, as required below the base of oxidation (>50 metres vertical depth). • RC drilling (5 ¼ inch face sampling hammer) from surface • HQ Triple Tube from surface (78 mm)
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample*	• Drill sample returns as recorded were considered excellent. • There is insufficient data available at the present stage to evaluate potential sampling

Criteria	JORC Code explanation	Commentary
	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.*	bias.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	• Drill chip logging is a qualitative activity with pertinent relevant features recorded: lithology, mineralogy, mineralisation, structural, weathering, alteration, colour and other features of the samples. • Rock chip boxes of all sample intervals were collected. All samples were logged. • HQ core was logged in detail, photographed wet and dry, RQDs, structural measurements on all completed. Core was orientated where possible. • All drilling was logged.
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.*	• HQ diamond core was sent to ALS where it was sawn in half along orientation lines or cut lines marked by the geologist in the field. • Sample preparation for all recent samples follows industry best practice and was undertaken by Nagrom Laboratories in Perth where they were crushed, dried and pulverised to produce a sub sample for analysis. • Sample preparation involving oven drying, fine crushing to 95% passing 4mm, followed by rotary splitting and pulverisation to 85% passing 75 microns. • QC for sub sampling follows Nagrom procedures. • Field duplicates were taken at a rate of 1:30. • Blanks were inserted at a rate of 1:30 • Standards were inserted at a rate of 1:30. • Sample sizes are considered appropriate to the grain size of the material being sampled.
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 methods are considered appropriate to the style of mineralisation. Extractions are considered near total. • No geophysical tools were used to determine any element concentrations at this stage. • Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and duplicates as part of the in house procedures. Repeat and duplicate analysis for samples shows that the precision of analytical methods is within acceptable limits.
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*	• The Company's Geologist has visually reviewed the samples collected. • 4 HQ diamond twin holes drilled • Data and related information is stored in a validated Mapinfo or Micromine database.

Criteria	JORC Code explanation	Commentary
	procedures, data verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	Data has been visually checked for import errors. • No adjustments to assay data have been made.
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.*	• All drillholes have been located by DGPS with precision of sample locations considered +/-1m. • Location grid of plans and cross sections and coordinates in this release 2016 samples use MGA94, Z51 datum. • Topographic data was assigned based on a DTM of the Julius opening surface.
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.*	• The holes are nominally spaced on a 10-20 metre (E-W spacing) with hole spacing along each section ranging from 10-20 metres spacing along each section line. • Data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures. • Sample compositing has occurred on a small number of samples (4 metre composite samples) outside of the interpreted main mineralized zone. .
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 orientation of sampling is considered adequate and there is not enough data to determine bias if any. • Mineralised outcrop strikes north-north-east. Drilling was orthogonal to this apparent strike and comprised vertical drill holes. The flat lying laterite also trends in this orientation and the vertical drilling completed is considered entirely appropriate for this style of mineralization.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by the Company and samples are transported to the laboratory via Company staff with samples safely consigned to Nagrom for preparation and analysis. Whilst in storage, they are kept in a locked yard. Tracking sheets are used track the progress of batches of samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No review or audit of sampling techniques or data compilation has been undertaken at this stage.

Appendix 3 – Forward Looking Statements

Nature of Document: This announcement has been prepared and issued by Echo Resources Ltd (Company) to provide general information about the Company. The information in this document is in summary form and should not be relied upon as a complete and accurate representation of any matters that a reader should consider in evaluating the Company. While management has taken every effort to ensure the accuracy of the material in this announcement, the Company and its advisers have not verified the accuracy or completeness of the material contained in this announcement.

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Forward looking statements: This announcement contains forward-looking information about the Company and its operations. In certain cases, forward-looking information may be identified by such terms as "anticipates", "believes", “should”, "could", "estimates", “target”, “likely”, “plan”, "expects", "may", “intend”, "shall", "will", or "would". These statements are based on information currently available to the Company and the Company provides no assurance that actual results will meet management's expectations. Forward-looking statements are subject to risk factors associated with the Company’s business, many of which are beyond the control of the Company. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements.

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