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Wiluna Expansion PFS confirms robust economics for +200kozpa long mine life operation

Blackham Resources Ltd ("Blackham" or "the Company") (ASX: BLK) has pleasure in announcing the successful results of the Expansion Preliminary Feasibility Study (PFS) on its 100% owned Matilda & Wiluna Gold Operation ("Operation"). The PFS demonstrates robust economics and improved economies of scale supporting the Operation's expansion. Historically, over the last 20 years, the Operation has relied predominately on underground feed. Blackham's comparative advantage to previous operators is the 15Mt @ 2.3g/t Au (85% at Reserve classification) in open pit feed, which is included in the Expansion PFS Mine Plan.

Blackham's principal success to date has been identifying, consolidating and defining orebodies all within 20kms of the existing Wiluna Gold Plant. From the large existing Resource base of 61Mt @3.1g/t for 6.2Moz Au, the Expansion PFS brings into **Reserves 1.2Moz (15Mt @ 2.5g/t) – an increase of 116% in 1 year.**

Expansion PFS Highlights			
• Initial Gold Production		1.47Moz Au over initial 9 years	
• Open Pit Mining Inventory		15Mt @ 2.3g/t for 1.1Moz	
• Underground Mining Inventory		4Mt @ 4.7g/t for 608koz	
• Expanded processing capacity		up to 3.3Mtpa	
• Gold Production average		207,000ozpa (first 6 yrs after expansion)	
• LOM All in sustaining costs		A$1,058/oz or US$836/oz	
• Project cash flows	$571M*	Initial Capex	$114M
• NPV8%*	$360M*	IRR*	123%

* assumes A$1,600/oz gold price and before corporate and tax

- **Oxide reserves currently 3.5 years**
- **Opportunity to grow open pit reserves from Matilda, Lake Way, Wiluna North and Regent resources and targets**
- **Wiluna underground has 20Mt @ 4.8g/t for 3.0Moz of Mineral Resources outside the mine plan with the economics still to be fully evaluated which will include assessing bulk mining opportunities**
- **Expansion Definitive Feasibility Study (Expansion DFS) is underway with key work well advanced**
- **Very few operations in premium mining jurisdictions have defined resources of a scale to support 200,000ozpa of production with a strong grade profile and likely long mine life.**

Cautionary Statement

Blackham has concluded it has reasonable basis for providing the forward looking statements included in this announcement (see Appendix 1). The detailed reasons for that conclusion are outlined throughout this announcement. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules.

Cautionary Statement continued.
The Expansion Preliminary Feasibility Study (PFS) referred to in this announcement has been undertaken by Blackham Resources Limited and its consultants and contractors to assess whether a business case can be made for proceeding to and setting parameters for sizing, scope and engineering for more definitive studies. The Expansion PFS relies on both the Definitive Feasibility Study announced to the ASX on 24 February 2016 (2016 DFS) plus additional Expansion PFS studies which are based on detailed technical and economic assessments that are sufficient to support estimated gold production of which 70% is based on current ore reserves. The Production Targets, Forecast and Financial Information utilised in this study in the later years of production are based on the Mineral Inventory which includes Inferred Mineral Resources for which there is a lower level of geological confidence. The Company believes it has reasonable grounds for including Inferred Mineral Resources as they are late in the mine plan and within planned pits or in close proximity to underground development. However, there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Targets and timetables will be realised. The PFS is based on the material assumptions outlined in this announcement and to an accuracy level of +/- 25%.

Summary

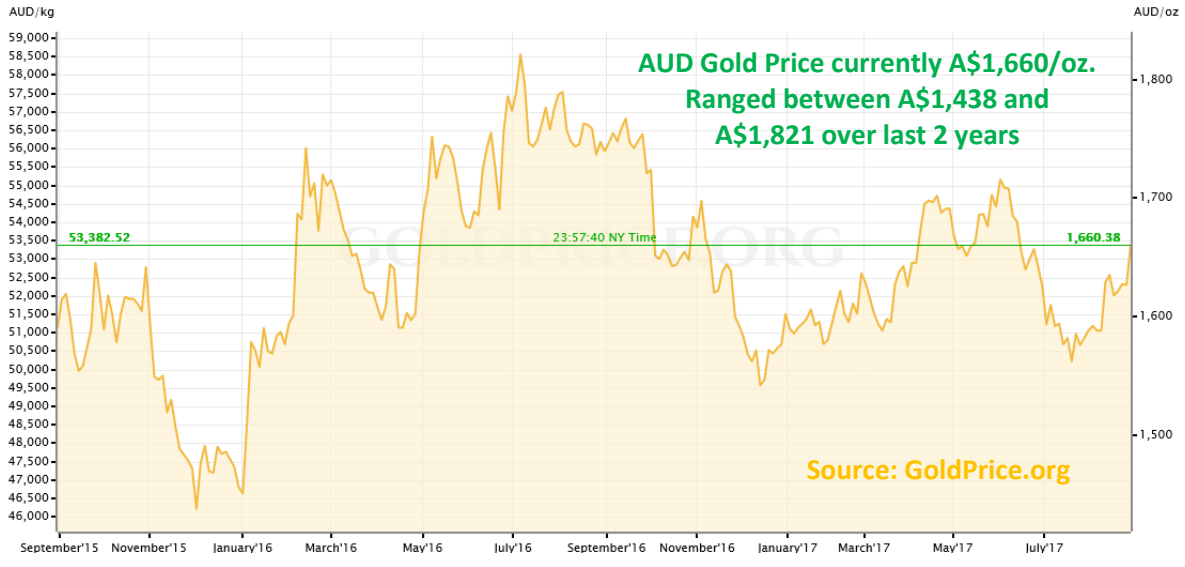
Blackham has pleasure in confirming the Matilda/Wiluna Operation's very strong economics, including a capital efficient expansion, strong returns on investment and operating costs that are in line with its Western Australian peers. The capital efficient nature of the Expansion cost estimate is supported by the substantial plant and mining infrastructure already in place. The Expansion PFS focusses on confirming an improved processing route to bring forward the value of the large scale sulphide resources. The Expansion PFS demonstrates robust economics for the expanded, parallel processing of oxide and sulphide ores.

Table A below demonstrates the project's economics at a range of gold prices. Every A$100/oz increase in the gold price adds $133 million to the cash flow of the project.

Table A: Expansion PFS Economics

Gold Price Sensitivity	A$1,500/oz[1] US$1,185/oz	A$1,600/oz[1] US$1,264/oz	A$1,700/oz[1] US$1,343/oz
Project Cash Flow	**$438M**	**$571M**	**$704M**
$NPV_{8\%}$ before corp & tax	**$266M**	**$360M**	**$455M**
IRR before corp & tax	**63%**	**123%**	**>1,000%**
Average EBITDA (for first 6 yrs after expansion)	**$99M**	**$118M**	**$138M**

1. The average gold price for 2017 is A$1,632. The average gold price for 2016 to 2017 is A$1,665
2. Assumed exchange rate of 0.79 USD/AUD
3. Economics represent the cash flows of the combined Operation going forward



The Expansion PFS gives Blackham the flexibility to treat both oxide and sulphide ores from June 2019, as an indicative date, which will be confirmed during the Expansion DFS which is targeted for completion at the end of the 1st quarter of 2018. The Expansion PFS has focused on the Wiluna sulphides and their integration with the current free milling ores at Matilda and Wiluna. It has been assumed the expanded operation would be developed through:

- construction of a new crushing and grinding circuit to increase throughput by 1.5Mtpa
- construction of a new flotation circuit
- refurbishment of the existing sulphide treatment plant which has operated for 20 years
- construction of a new carbon in leach (CIL) circuit

On the completion of the Expansion, the free milling circuit and the sulphide circuit would run in parallel as two processing facilities, with total capacity of up to 3.3Mtpa. Significantly, the estimated capital cost per oz of production is $77/oz, which the Company believes is outstanding compared to industry averages.

Blackham will now switch its exploration and drilling focus back to strengthening and lengthening its 3.5 year oxide profile from identified resources and geological targets. This work will be aimed at demonstrating a long reserve backed mine life for both processing circuits and is expected to further improve project economics.

Blackham Managing Director Bryan Dixon stated "The Wiluna Expansion Plan aims to achieve a step change in gold production from the 6.2Moz resource at the Matilda/Wiluna Operation. The Expansion PFS has confirmed gold production averaging 207,000ozpa is achievable on a very capital efficient basis for a likely long mine life. Very few Australian gold operations operate at this scale with long mine lives, which proves the significance of the Wiluna goldfield as a major gold province for the future."

Over the last six years, Blackham has consolidated the Wiluna Goldfield with a tenement package covering over 1,100km^2, into one Operation that has historically produced over 4.3 million ounces. The Matilda/Wiluna Gold Operation is located in Australia's largest gold belt which stretches from Norseman to Wiluna and passes through Kalgoorlie and Leinster. Blackham's 100% owned Operation recommenced production in October 2016 and comprises a 1.8Mtpa gold plant, BIOX® plant, 17MW new gas and diesel power stations, 300 room camp, borefields and underground infrastructure. The Expansion envisages increasing the **expanded plant capacity to between 2.3 and 3.3Mtpa to unlock the value of a larger portion of the 6.2Moz gold resource** (61Mt @ 3.1g/t Au).

The Matilda/Wiluna Gold Operation's **61Mt @ 3.1g/t for 6.2Moz** gold Resources are to JORC 2012 standard and are all within a 20km radius of the Wiluna Gold Plant (refer to ASX release dated 3rd August 2017 for details). **32Mt @ 3.1g/t for 3.1Moz** (51%) are in the Measured and Indicated Resource category (Table L).

Blackham has focused its exploration strategy around ensuring it has a long open pit mine life to provide certainty with feeding an expanded 3.3 Mtpa processing facility. This represents a significantly different strategy from previous owners of the Operation, where most the plant feed was delivered from underground mining for the 20 years prior to Blackham's ownership. The large open pit reserves add certainty that the expanded plant can be fed with base load ore, whilst providing the project scale to improve the economics of the underground ores which have good grade profile.

The Expansion PFS also provides an initial assessment of alternate processing routes to the base case expansion plan with a view to where the business model can further be improved (see Processing section below). During the Expansion DFS some of these other possible cases will be run as parallel investigations in order to benchmark capital cost and return metrics to verify the best possible case for consideration by the Blackham Board.

Very few operations in premium mining jurisdictions have the geology on a scale to support a +200,000oz operation with strong grade profile and long mine life potential. The expanded Wiluna processing facility will have the ability to process a variety ore types.

Gold Production

Table B: Expansion PFS Gold Production Outcomes

		Initial Study*	PFS
Mine life	yrs	9	9
Tonnes Milled	Mt	17.8	19.1
Processed Grade	g/t	2.7	2.8
Recovery	%	86%	86%
Production Ounces	**Moz**	**1.31**	**1.47**

* Refer to ASX release dated 8th May 2017

The Expansion PFS outlines an economic plan to process both oxide ore (1.8Mtpa) and sulphide ores (1.5Mtpa) for a combined processing capacity of between 2.3 and 3.3Mtpa. Key operating parameters include:

- Gold Production of 1.47moz from processing 19.1Mt @ 2.8g/t at a 86% recovery over 9 years (Chart 1)
- First 6 years of expanded plant gold production averages 207,000oz @ 3.1 g/t (Chart 1)
- Base load open pit production (inc stockpiles) underpins plant feed which totals 15.1Mt @ 2.3g/t Au with and average stripping ratio of 11.7:1 mined over 9 years (Chart 2)
- Underground production total of 4.0Mt @ 4.7g/t mined over 9 years (Chart 2) which is likely to be extended from the significant underground resources outside the mine plan of 3.0Moz (20Mt @ 4.8g/t Au)
- The Expansion is expected to take 15 months from commencement and is assumed to be completed in June 2019.

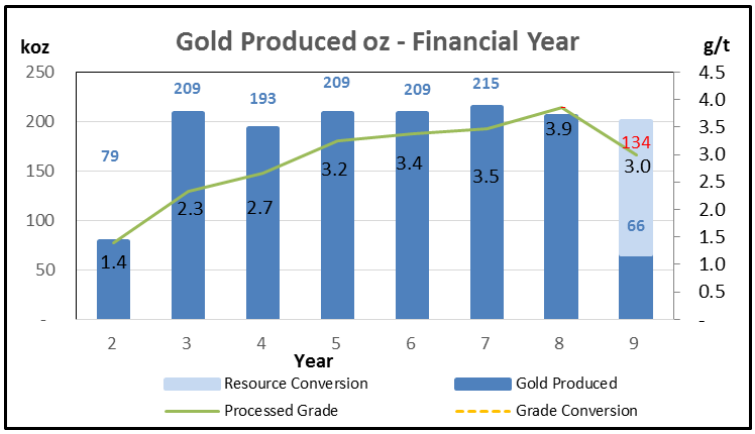


Chart 1: Expanded Gold Production from year 3

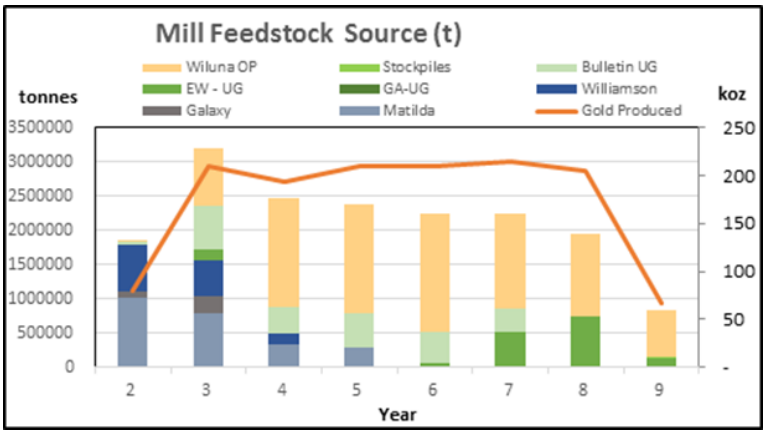


Chart 2: Expanded Mill Feed sources

Mine plan grows by 95% in one year to 1.7Moz

Current mining is taking place at the Matilda and Galaxy open pits and from the Golden Age underground. The Expansion PFS mine plan has now grown to **19Mt @ 2.8g/t for 1.7Moz** of contained gold. The Mine Plan (Mining Inventory) and Production have been calculated using the Gold Resources in Table L, which include drilling results up until June 2017.

Table C: Matilda & Wiluna Operations Mine Plan and Mining Inventory

Matilda Gold Project Mining Inventory Summary															
OPEN PIT INVENTORY															
Mining Centre	Measured			Indicated			Inferred			Total 100%			Free Milling		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine OP	0.8	1.4	34	2.4	1.6	124	0.2	1.1	8	**3.4**	**1.5**	**166**	3.4	1.5	166
Galaxy OP	0.6	1.4	27	0.1	1.0	3	0.0		0	**0.7**	**1.4**	**30**	0.7	1.4	30
Williamson Mine				1.5	1.4	68	0.1	1.1	5	**1.6**	**1.4**	**73**	1.6	1.4	73
Wiluna OP				7.7	2.7	669	1.4	3.4	148	**9.0**	**2.8**	**817**	0.4	1.1	14
Stockpiles				0.4	0.9	11				**0.4**	**0.9**	**11**	0.4	0.9	11
OP Total	1.4	1.4	61	12	2.3	875	2	2.9	160	15	2.3	1,096	6.5	1.4	293
UNDERGROUND INVENTORY															
Mining Centre	Measured			Indicated			Inferred			Total 100%			Free Milling		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Golden Age	0.04	5.6	7	0.02	8.7	4	0.0	0.0	0	0.1	6.4	12	0.1	6.4	12
East West UG				0.6	5.0	96	1.0	4.7	152	1.6	4.9	248			
Bulletin UG[1]				1.3	4.5	190	1.1	4.6	159	2.4	4.5	349			
UG Total	0.04	5.6	7	1.9	4.7	290	2.1	4.7	311	4.0	4.7	608	0.1	6.4	12
Grand Total	1.4	1.5	69	14.0	2.6	1,165	3.8	3.9	471	19.2	2.8	1,704	6.6	1.4	305

The Expansion PFS mining study focused on the Wiluna open pits and underground operations plus incorporating the existing Matilda, Quartz Reef and Lake Way Reserves and Mining Inventory which are supported by the 2016 DFS and additional grade control and operating information. PFS level designs were used for the Wiluna open pits and detailed designs were undertaken for the underground operations.

Table C above summarises the respective Mineral Resource Estimation classification (by ounces) that support the Expansion operation's gold production. From the 19 million tonnes to be mined, 80% is classified as Measured and Indicated Mineral Resources and 20% as Inferred Mineral Resource.

The Mining Inventory contains Inferred Resources for which there is a lower level of geological confidence. There is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised. The Inferred material in the Mining Inventory has had appropriate modifying factors and mine designs applied as part of the economic evaluation and the majority is at the back end of the 9 year mine plan. The proportion of Inferred material contained within the mine plan is considered to be comparable to other projects at a PFS level of study. The Company believes there is a reasonable expectation that a material conversion of Inferred Mineral Resources to Indicated Mineral Resources from both inside and outside the mine plan will occur from infill drilling at the Operation.

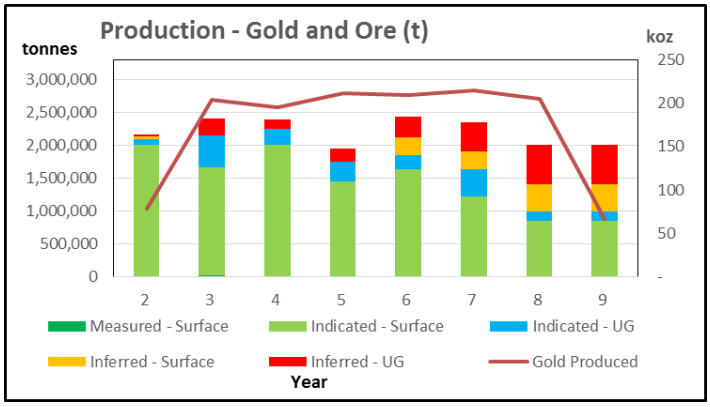


Chart 3: Inferred Resource Tonnes with Production

The 1.2Moz Mining Reserve has grown 116% in just one year

Measured and Indicated Resources have been converted to Proven and Probable Ore Reserves based on modifying factors, mine designs and economic evaluation. A detailed financial model for the Project was generated and used by Entech Pty Ltd (Entech) and Intermine Engineering Consultants (Intermine) as part of the study process and has been used to determine the economic viability of the Ore Reserve Estimate.

Table D: Ore Reserves Estimate (August 2017)

Matilda Gold Project Reserve Summary									
OPEN PIT RESERVES									
Mining Centre	**Proven**			**Probable**			**Total**		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine OP	0.9	1.2	37	2.2	1.6	114	3.1	1.5	151
Galaxy OP	0.7	1.3	29	0.1	0.8	4	0.8	1.2	33
Williamson Mine				1.4	1.5	67	1.4	1.5	67
Wiluna Open Pits				7.7	2.7	669	7.7	2.7	669
Stockpiles				0.4	0.9	11	0.4	0.9	11
OP Total	**1.6**	**1.3**	**66**	**12**	**2.3**	**865**	**13**	**2.2**	**931**
UNDERGROUND RESERVES									
Mining Centre	**Proven**			**Probable**			**Total**		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Golden Age	0.04	5.6	7	0.02	8.7	4	0.06	6.4	12
East West UG				0.56	5.0	91	0.56	5.0	91
Bulletin UG[1]				1.15	4.6	168	1.15	4.6	168
UG Total	**0.04**	**5.6**	**7**	**1.73**	**0.0**	**263**	**1.8**	**4.8**	**271**
Grand Total	**1.7**	**1.4**	**73**	**13.6**	**2.6**	**1,128**	**15.2**	**2.5**	**1,201**

1) Bulletin Underground includes reserves from the Essex, Creakshear and Lennon underground mining areas
Calculations have been rounded to the nearest 1,000 t of ore, 0.1 g/t Au grade and 1,000 oz. Au metal.

The Ore Reserve Estimate is based on JORC-compliant Mineral Resource Estimates, as depleted to June 2017, that were calculated in conjunction with the Expansion PFS for the Operation and are underpinned by this study. Entech was commissioned by Blackham to provide an independent Ore Reserve Estimate update for the Wiluna underground. The Golden Age underground reserves were estimated by Blackham personnel. Intermine were commissioned by Blackham to provide an independent Ore Reserve Estimate for the open pits.

Wiluna Open Pit Mine Plan

Historically, over the last 20 years, the Operation has relied predominately on underground feed. Blackham's comparative advantage to previous operators is the 15Mt @ 2.3g/t Au (85% at Reserve classification) in open pit feed, which was included in the Mine Plan.

The Wiluna open pits are expected to produce 9.0Mt of ore at a diluted and recovered grade of 2.8g/t Au for 817,000oz contained ounces (82% at Reserve classification) at an average stripping ratio of 13 to 1 (t:t) over the LOM. The Wiluna open pit mining costs are estimated at $8.06/bcm and $3.30/t of material moved. The combined cost for all of the open pit operations is $7.82/bcm due to the Matilda pits having lower mining costs. The open pit schedule is based on bench by bench mining of the material inventory quantities calculated within the individual open pits incorporating specific dilution and recovery for each individual mining domain. Stockpiling of ore will be required in the later years of the schedule. A summary of the material inventory within all the Wiluna Operation's open pits that are and will be available as part of the expansion plan are provided in Tables E and F below.

Table E: Wiluna Open Pits LOM Mining Inventory

		PES LOM	PFS LOM	Variance
Tonnes Milled	Mt	7.6	9.0	1.4
Processed Grade	g/t	2.5	2.8	12%
Production Ounces	Oz	609,000	817,000	208,000
Stripping ratio	t:t	10: 1	13: 1	

Table F: Wiluna Open Pits LOM Mining Inventory and Reserve

	Ore		Mined	Waste	Waste		Reserves	Reserves
	t	g/t	Koz	Mbcm	Mt	t:t	Koz	%
East West pit	7.0	2.8	637.0	36.2	91.2	13	492.6	77%
Happy Jack	0.6	3.0	57.7	2.8	5.9	10	56.0	97%
Bulletin	0.8	2.5	66.0	4.2	9.1	11	64.6	98%
Essex	0.4	2.6	33.4	2.8	6.1	16	33.2	99%
Squib	0.2	3.1	22.4	2.0	4.3	19	22.4	100%
Total	**9.0**	**2.8**	**816.5**	**48.2**	**116.6**	**12.9**	**668.8**	**82%**

Figure 1. Happy Jack to Bulletin Pit Designs

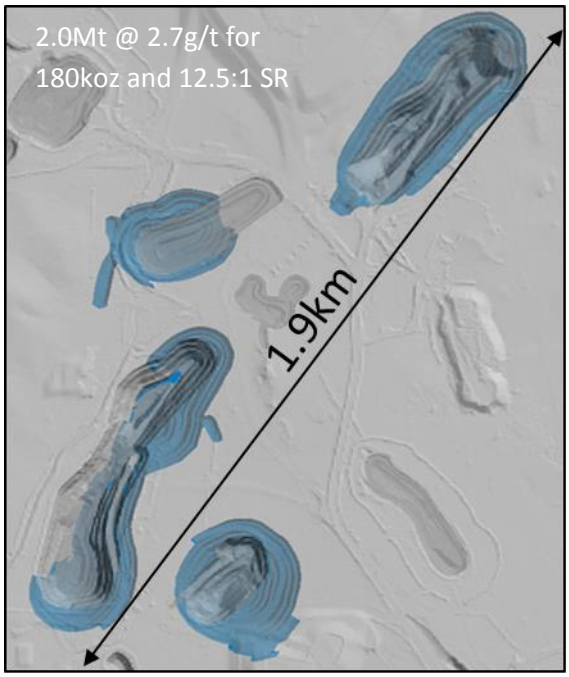
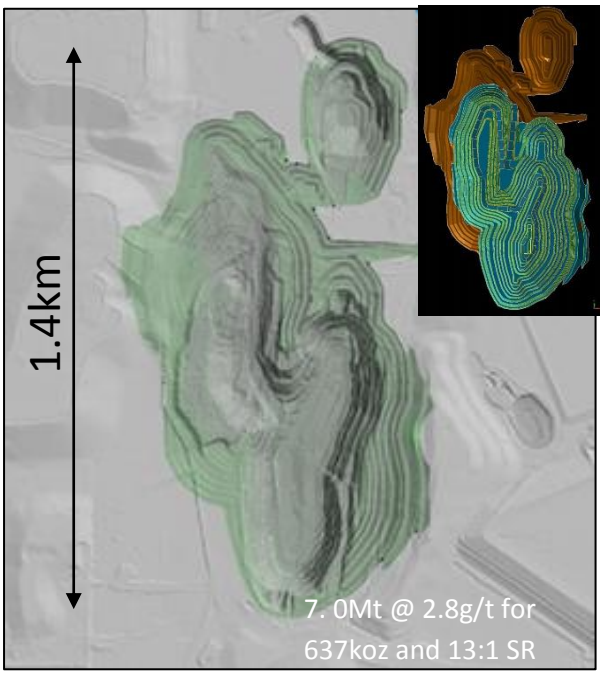


Figure 2. East West Pit Design



The Wiluna open pits are all within 4kms of the Wiluna gold plant and will not require additional haulage. Contactor estimates were received for the mining of the Wiluna open pits which were then incorporated into an optimisation analysis to derive the optimum pit shells for each mining area. Pit shells were then selected to create open pit designs where the scheduling and modelling is generated from.

The risk of interaction between the open pits and the underground operations was reduced by scheduling mining at different times in areas of close proximity to one another. There could be times when this is unavoidable and will be addressed by ensuring that adequate risk management processes and procedures are implemented.

The open pit mining methods are well-known and widely used in the local mining industry and production rates and costings can be predicted with a suitable degree of accuracy. Suitable access exists for all mines with allowances being made for earthworks and infrastructure requirements including clearing for site facilities and mining areas. The Wiluna Open pit mining will utilize a standard truck and excavator mining technique involving conventional drill, blast, load and haul. Ore will be hauled directly to the Wiluna gold plant on existing haul roads. In addition to the mining fleet, ancillary plant consisting of tracked bulldozers, wheel loaders, graders and water carts will be required. The ancillary fleet will prepare drill and blast areas, as well as maintain active digging areas, mine roads and waste dumps. Ore will be delivered to the Run of Mine (ROM) pad at the plant site and then fed to the treatment plant via a ROM loader.

Blackham has delineated the Wiluna Open Pits LOM Mining Inventory based on historical drilling plus 58,000m of drilling completed from Sept'16 to May'17. Over the last 3 months, Blackham has completed a further 22,000m of infill and extensional drilling into the northern Wiluna open pit resources.

Both the East and West lodes have been mined historically from underground which will potentially result in open voids within the planned pit. In this estimate, mineralisation immediately adjacent to historical stopes has been classified as Inferred due to uncertainty associated with the application of mining factors allowing economic extraction around the voids. Of the 151,000oz of Inferred material within the East-West pit design 96,000oz (816Kt @ 3.65g/t) lies adjacent to previously mined stopes.

Many of the historical stopes intersected during mining of both the East and West pits by Newmont in the late 1990s were discovered to have been back-filled with material grading between 4g/t and 8g/t gold. Close spaced probe drilling by both Newmont and Apex (previous owners) found that most of the historical stopes beneath the current floor of the East pit have also been back-filled. Assays from this drilling indicate that the backfill contains significant mineralisation with gold grades similar to that of the previously mined backfill. However, for the purposes of the Expansion PFS, this backfill has been treated as waste and assigned a grade of 0.0g/t for the mine planning and resource block models. Blackham is progressing work to confirm evidence of backfill within stope voids with potentially higher grades than the existing resource. It is expected that this work will continue to strengthen and de-risk the already significant resource and reserves.

Wiluna Underground Mine Plan

Blackham engaged independent mining consultants Entech, to review the underground deposits, perform stope optimisations and prepare detailed mine designs with a focus on the resources in the top 600m from surface. Blackham's strategy is to leverage off existing underground infrastructure and follow the previously mined orebodies along strike with a view to minimising mining costs.

The underground operations at Wiluna are divided into two distinct areas. The Bulletin underground operations will be initially accessed from the existing Bulletin and Happy Jack Portals. The East-West underground operations will be accessed from existing underground infrastructure and two East Pit portals. Ore from the underground mines will be predominately extracted via top-down mechanised long hole open stoping and a smaller amount of a bottom-up modified Avoca mining method using unconsolidated backfill. Suitable pillars are left behind to ensure ground stability during the mining process. Ore is trucked to the surface and then hauled to the gold plant.

An updated Bulletin mine plan was completed with the major changes to the 2016 DFS comprising the inclusion of a new incline to the south of the existing Bulletin workings and the development of accesses to the Essex underground from the Happy Jack Decline. The Bulletin upper and mid will be long hole open stoped and the Bulletin 200 and Creek Shear will utilize a bottom-up modified Avoca method using unconsolidated backfill. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation.

The Bulletin Underground will be the first sulphide ore extracted due to it requiring very little development capital (decline and all mining infrastructure currently in place) to access the mining inventory of 349,000oz (2.4Mt @ 4.5g/t Au) resulting in a very short payback of capital. Drilling is currently underway which will result in the first three years of planned production being classified as Ore Reserve.

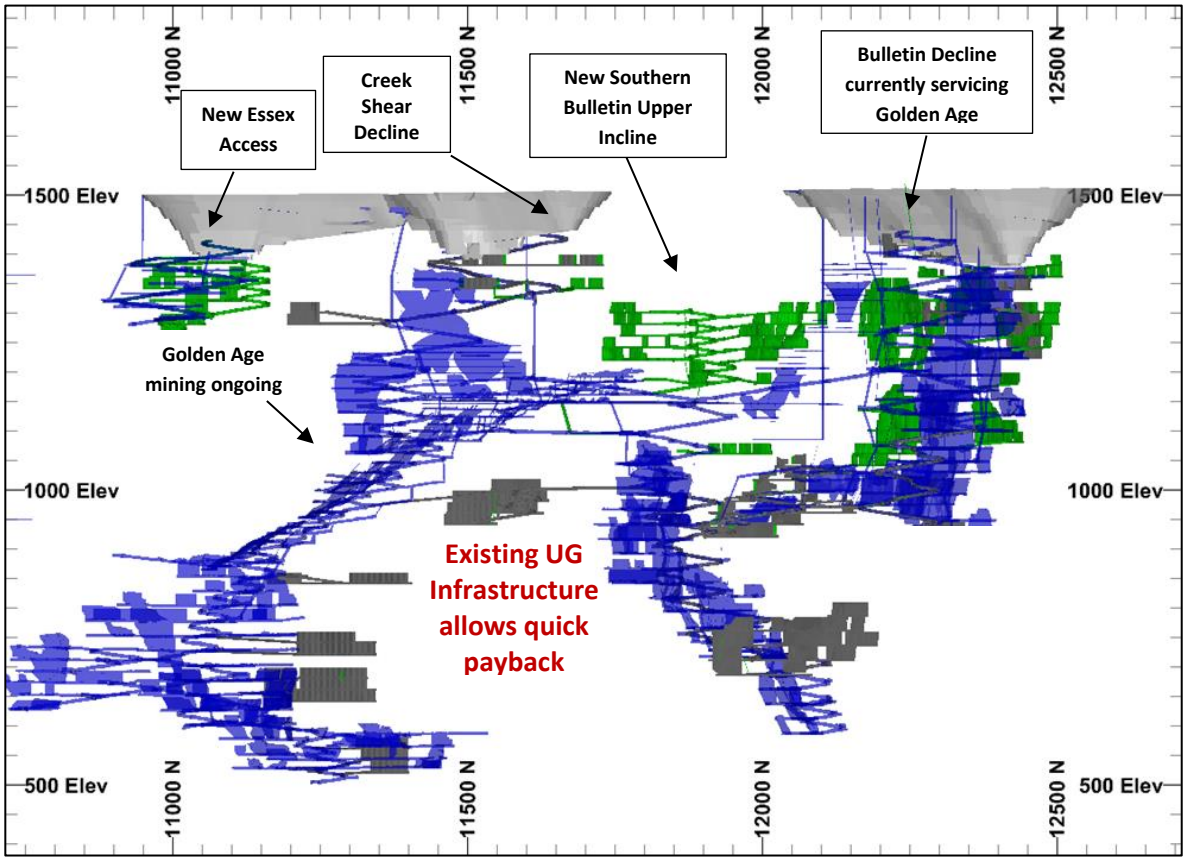


Figure 3: 2017 Bulletin to Essex Underground Mine Designs (Long-Section Looking West)
(Green=New Mine designs, Grey= from 2016 DFS)

The East-West underground also commences in the first year of expanded production and contributes over the life of the Wiluna Pits. There is a hiatus from when the East Pit cuts back on the current portal locations to when they are re-established to continue underground mining.

Underground production at East-West will be mined top-down via mechanized long hole open stoping with in-situ pillars retained for stability as per the original 2016 DFS. The initial mining study has focused on areas to the north and south of historical workings. Recent drilling at East West has provided further confidence in the accuracy of historical mining development and stoping voids. The design criteria and mine design parameters were the same as those outlined in the DFS announced to the ASX on 24 February 2016. The underground mining operating costs are estimated at $67/t of ore plus $24/t of ore for sustaining capital.

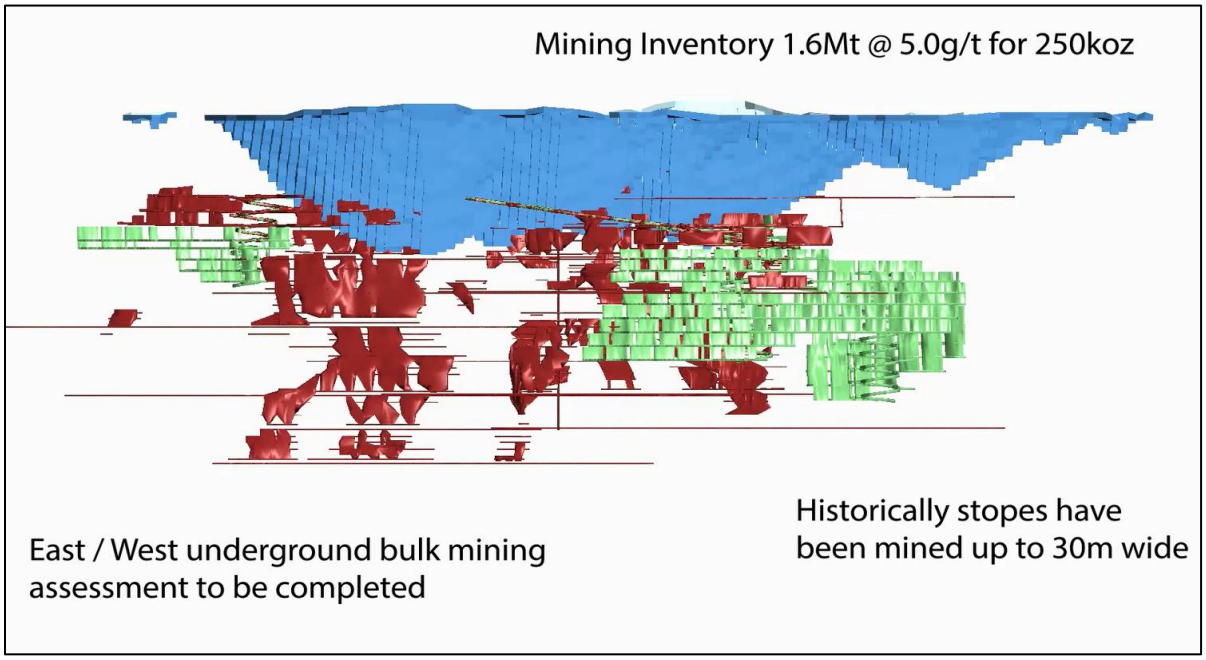


Figure 4: East-West Underground Mine Designs from 2016 DFS in Green (Long-Section View Looking West) Red areas represent historical mining that produced 1.5Moz mainly between the 1930-1950's

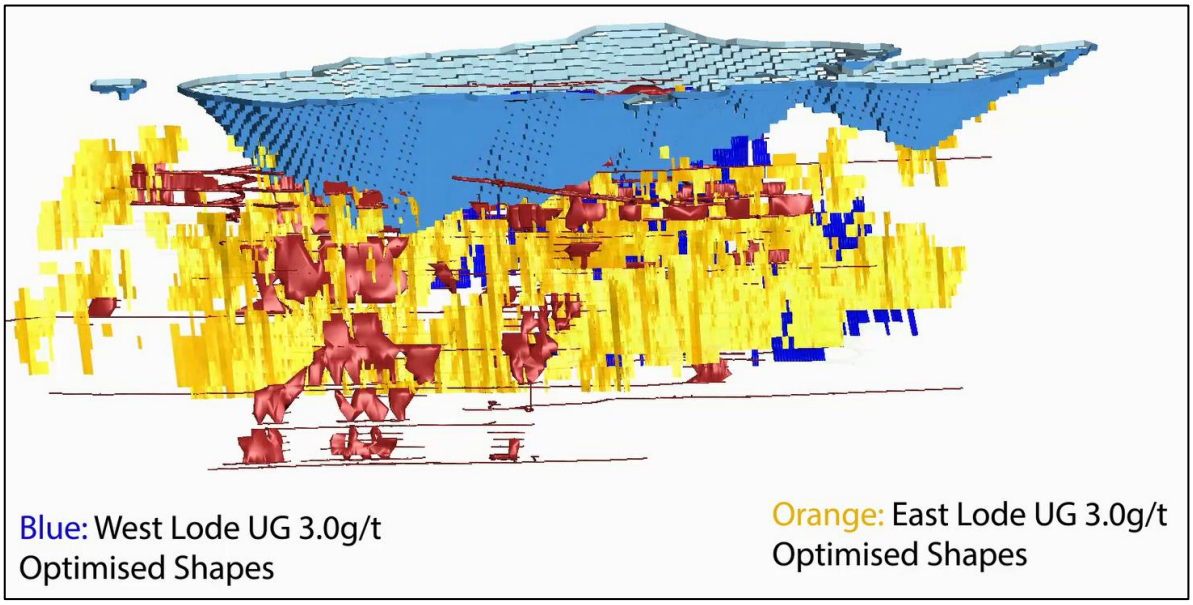


Figure 5: East-West underground stope optimisations in orange and blue (Long-Section View Looking West) to be assessed during the DFS

During the Expansion DFS an assessment will be made on the areas outside the mine plan but within the 3g/t UG stope optimisations (blue and orange areas) as well as bulk mining opportunities in the East-West underground where the orebody is up to 40m wide in places. The Company sees the opportunity for this work to provide further value to the immediate underground mine plan.

Geotechnical Studies

Geotechnical assessments were conducted by Peter O'Bryan & Associates as part of the 2016 DFS. That DFS work involved diamond drilling for core samples, laboratory testing, core logging and photogrammetric mapping. Since then additional geotechnical logging and stability assessments have been performed to supplement the original DFS work. Analyses using the extended database were conducted to derive pit wall design criteria, underground stope and pillar designs, preliminary underground development design and ground support requirements for the Expansion Study. These analyses and the recommendations provided are to appropriate PFS levels. Further geotechnical drilling

is currently in progress to ensure the Wiluna pits and underground extensions are assessed to a DFS level.

Hydrology

Licenses to extract groundwater are in place to supply the Operations including the Processing Plant, Village and Mine Workshop (amongst other existing infrastructure). Furthermore, the Operation maintains a license to abstract groundwater from the Wiluna Open Pits and Underground workings. As part of the PFS, the site wide water balance was revisited to quantify the water deficit under existing permits and with an Expanded Processing Plant and throughput. In addition, a preliminary hydrogeological evaluation was completed to identify opportunities to increase abstraction permits. Hydrogeological investigations will ensue to gauge and model yields from existing borefields and surrounds. Furthermore, the internal Process Plant water balance will be scrutinised to determine opportunities for process water recovery and re-use, including detoxification and polishing scenarios.

Gold Ore Processing

The Wiluna gold plant has run under several incarnations in the last three decades of operation, including Carbon in Pulp (CIP) and Carbon in Leach (CIL), to process free-milling (oxide) ores and more recently as a BIOX® CIL to process refractory (sulphide) ore. All of the sulphide orebodies included in the Mine Plan have previously been processed through the Wiluna sulphide circuit.

Blackham recently revitalised the oxide CIP circuit of the Wiluna Gold Plant to process Matilda, Galaxy, Golden Age and Williamson ores. Results of the 2016 DFS metallurgical testwork program on these ores were used to optimise the oxide CIP plant and where necessary, upgraded components, accordingly.

Also, as part of the 2016 DFS, comminution and flotation testwork was completed on Wiluna sulphide ore to assess optimal grind size and compatibility with the existing grinding circuit configuration. In addition to metallurgical testwork, engineering and historic operating data for the last 20 years for the Wiluna Gold Plant, production rates were reviewed to support the metallurgical production assumptions. Wiluna sulphide gold ore was processed through the Wiluna gold plant's sulphide circuit for 20 years between 1993 and 2013 and extensive data has been reviewed and analysed, including metallurgical reports, operating log sheets, plant assays, recoveries, reconciled head grades and operating costs.

Sulphide Process Modelling and Optimisation

Wiluna ores are refractory, excluding oxide and Quartz Reef ores, with most gold occurring in either solid solution or as sub-microscopic particles within fine-grained sulphides. For the 8-year period from July 1999 to July 2007, for which data is readily available, the Wiluna sulphide circuit averaged 84% gold recovery from a feed grade of 5.4 g/t. Overall gold recovery is largely influenced by the sulphide recovery through the flotation circuit. The flotation testwork suggests an improvement on sulphide flotation recovery with smaller grind sizes; in turn, an improvement in gold recovery may be realised. The current metallurgical testwork is focussing on improving the sulphide flotation recoveries with a view to improving the overall gold process recovery. The Expansion PFS recommends the BIOX® reactors capacity be upgraded to 39 tonnes of sulphur per day for the optimisation of throughput and flotation recovery required to achieve ultimate BIOX® capacity.

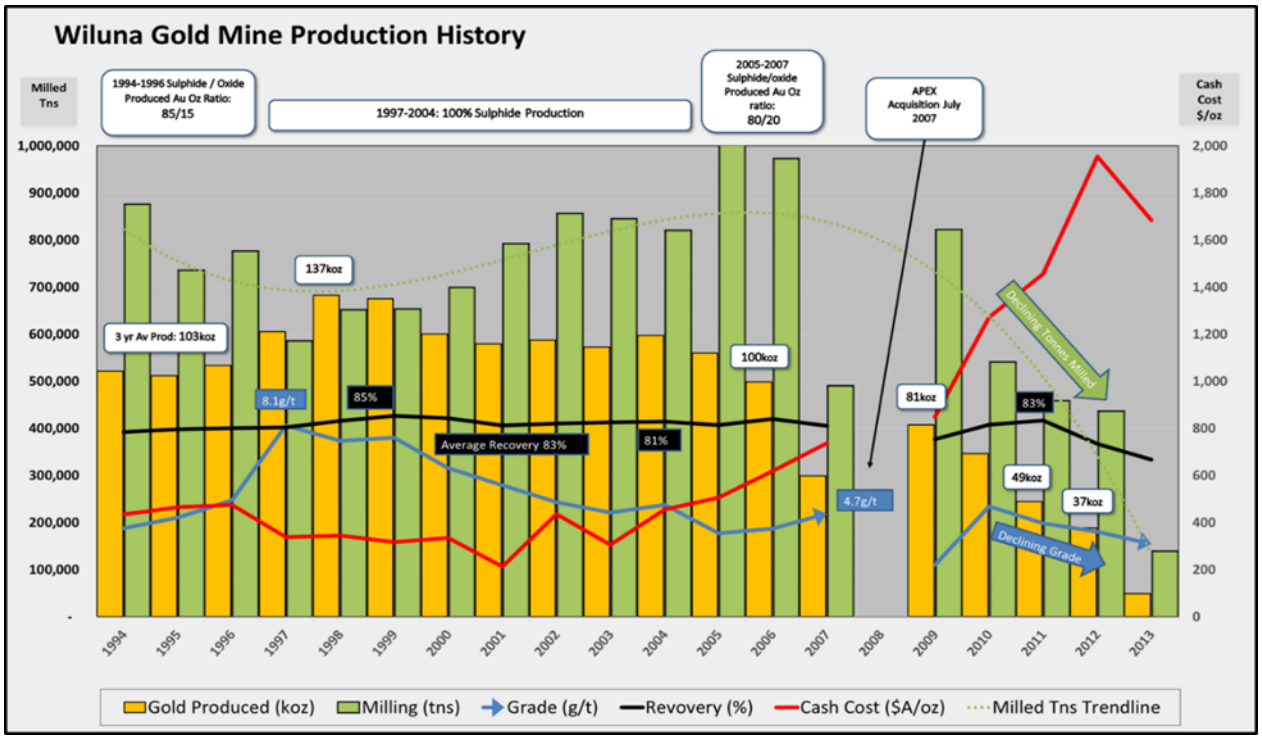


Chart 4: Wiluna Sulphide Circuit operating history demonstrates consistent metallurgical recoveries between 1994 & 2011.

Given the elevated hardness of the Wiluna ores, the existing Sulphide circuit throughput is limited by the grinding capacity of the existing circuit at approximately 750ktpa. The existing mill setup has two ball mills, a rod mill and a regrind mill post flotation that were used to treat the hard underground ores. The existing mill configuration reflects the transition from oxide ore into sulphide ore but is not ideal for the treatment of lower grade sulphide open pit orebodies.

As part of the Expansion PFS, Minnovo Pty Ltd ("Minnovo") were engaged to model and provide capital and operating cost estimates for the Sulphide circuit including new crushing, grinding and flotation circuits, to enable a 1.5Mtpa throughput rate. The Minnovo study assessed a series of comminution options based on available metallurgical data and indicated that single stage crushing into a SAG mill, then ball mill with a recycle (pebble) crusher, is the most suitable option.

Sulphide processing costs following the Expansion (0.75 to 1.5Mtpa) are expected to be reduced from $48/t (2016 DFS) to $30/t due to the larger throughput and the BIOX® plant running at full capacity. If the oxide circuit is running in parallel to the sulphide circuit then labour costs are reduced significantly and the incremental cost of the Sulphide circuit is further reduced to $27/t.

Table G: Sulphide Plant Processing Costs

Sulphide Processing Costs		Sulphide Plant Only		Sulphide Plant Incremental to Oxide Plant	
Labour		$	5.6	$	1.9
Power		$	9.1	$	9.1
Maintenace		$	1.9	$	1.9
Reagent and consumables		$	10.6	$	10.6
Other		$	0.8	$	0.8
Elution and gold room		$	1.4	$	1.4
Loader		$	1.0	$	1.0
Total Processing Cost		**$**	**30.4**	**$**	**26.8**

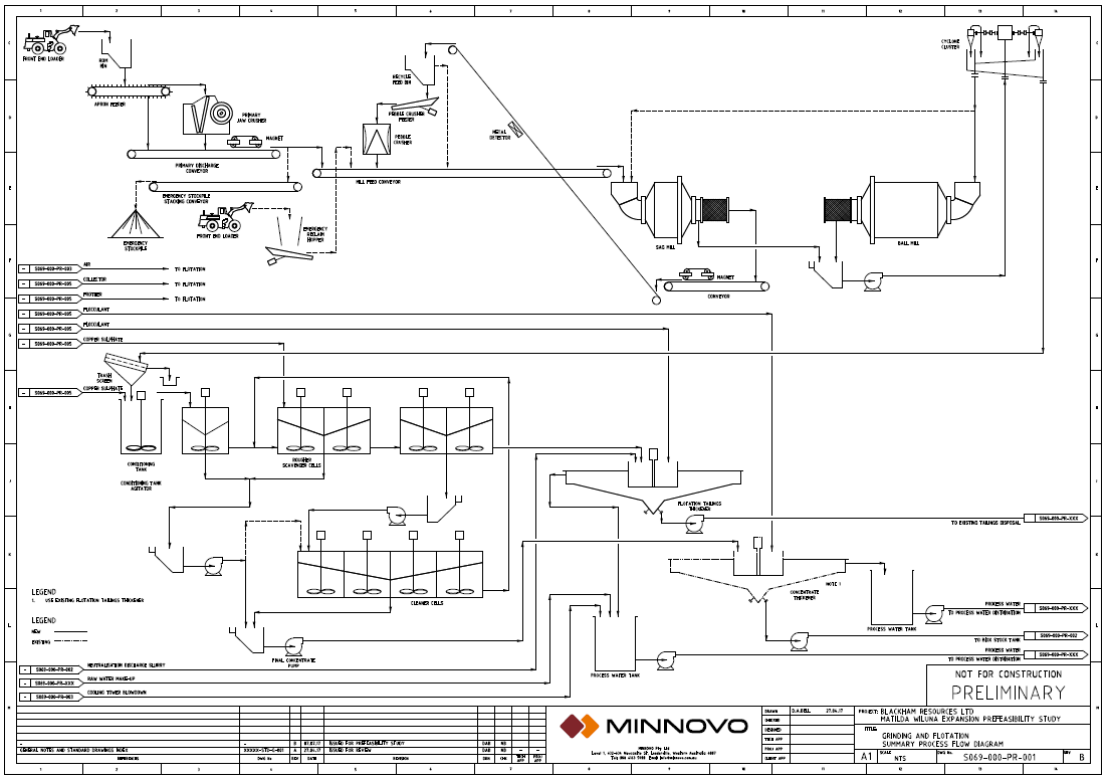


Figure 6: New Crushing, Grinding and Flotation Flow Diagram

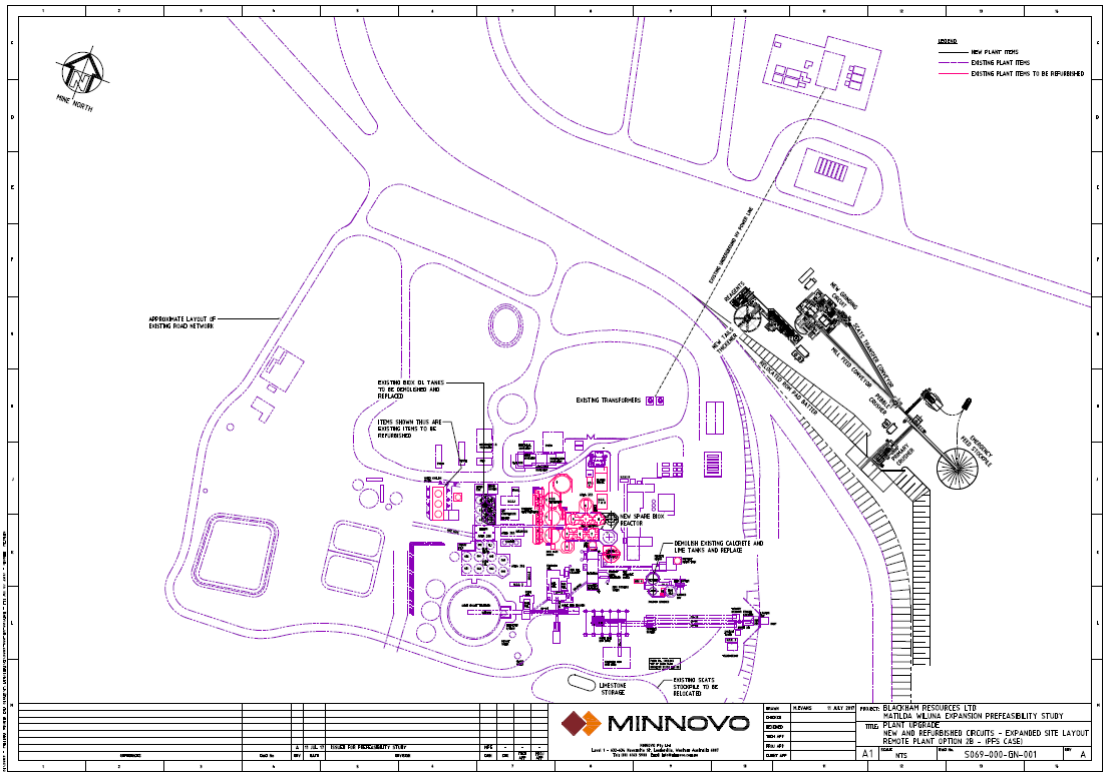


Figure 7: Expansion plant Layout with existing plant and infrastructure in purple, new plant items in black and refurbished plant in red

Opportunities to significantly extend oxide mill feed

The Company is initiating programs aimed at delivering additional oxide Reserves from identified exploration targets adjacent to existing deposits at Matilda, Lake Way and Mentelle. In addition, the Company has identified opportunities to source additional oxide material from known third party stranded deposits, within trucking distance of the Wiluna gold plant.

Future Work – Metallurgy and Process Design

As part of the Expansion DFS, additional metallurgical sampling and testwork programs are underway to gain further confidence on ore physical characteristics and bacteria oxidation rates. In addition, and as noted, additional flotation recovery tests against grind size will be undertaken to support process design criteria. The preliminary work on the new front end will be re-evaluated against the latest metallurgical data in combination with historic data.

Concentrate sales route

The Expansion PFS assumes the existing oxide circuit is converted into a sulphide gold concentrate circuit after the current 3.5 years of oxide Reserves are depleted at an additional capital cost of $6m. This assumption will be dependent on oxide exploration success and competitive pricing terms and potential credits for non-gold related minerals. The conversion of the oxide plant to produce a gold concentrate will have the added benefits of:

- Simpler flowsheet, with only front end capacity to the floatation circuit required; and
- Lower capital and operating costs

The biggest risk identified with the concentrate sale model is the quantum of the discount to gold price in selling the concentrate. As part of the Expansion PFS, the Company began engaging with potential concentrate offtake partners with a view to firming up concentrate pricing.

Table H: Processing costs by circuit

Processing Costs	LOM Mt	$/Tonne
Oxide processing cost	6.5	$ 14
Concentrate processing cost	2.9	$ 16
Sulphide processing cost	9.7	$ 27
Average Processing Cost LOM	**19.1**	**$ 20**

By expanding the Wiluna processing facility to 2.3 to 3.3Mtpa the processing costs per tonne have been reduced significantly to an average cost of $20/tonne processed.

Alternative Processing Scenarios to the Base Case

Alternative processing scenarios to BIOX® will be further assessed during the Expansion DFS. These include utilising both plants for the production of a high-grade gold/sulphur concentrate at a throughput rate of up to 2.25Mtpa. In addition to this, pressure oxidation processing is also being assessed. Currently both scenarios are at a scoping level of assessment.

Tailings Storage

Stage 1 of the new tailings storage facility (TSF J) was constructed in 2016; Blackham engaged Knight Piésold Pty Ltd (Knight Piésold) to provide engineering services for detailed design and construction supervision. Knight Piésold recently completed an evaluation of the ultimate capacity of TSF J under current and projected throughputs; the work indicated that the facility would reach capacity in 2020. In addition, potential locations for a new tailings storage facility (TSF K) were identified and assessed and, a preliminary design and construction cost estimate for TSF K was completed. TSF J is monitored and audited regularly, including production discharge against surveyed elevation and area, to assess tailings settled densities. The cost of tailings storage is included in the LOM model in sustaining capital.

Operating Costs and Capital Costs

The Expanded Matilda/Wiluna Gold Operation C1 cash costs and all in sustaining costs are forecast to be A$835/oz[1] and A$1,058/oz[2], respectively.

Table I: Expansion Study Key Findings	
Mine Plan Inventory	19.1Mt @2.8g/t for 1.7Moz Au
LOM Open pit strip Ratio (BCM:BCM)	11.7 : 1
Oxide Throughput	1.8Mtpa
Sulphide Throughput	1.5Mtpa
Expanded Combined Throughput	3.3Mtpa
Sulphide & 0.75Mtpa Concentrate Throughput (if oxide reserves are fully depleted)	2.3Mtpa
Life of Mine	9 years
Average Processing Recovery – (oxide and sulphide)	86%
Gold Produced over 9 years	1.47Moz

Table J: Cash Costs and AISC		LOM $M	$/oz	$/t
Mining Costs	A$	$804	$545	$42
Processing Costs	A$	$389	$264	$20
Onsite G&A Costs	A$	$38	$26	$2
Cash Costs C1	**A$**	**$1,231**	**$835**	**$64**
Royalties	A$	$142	$96	$7
Corporate Costs	A$	$28	$20	$1
Sustaining Capital Mining	A$	$100	$68	$5
Sustaining Capital - Plant & infrast.	A$	$59	$39	$5
All-in Sustaining Costs	**A$**	**$1,560**	**$1,058**	**$82**

1. C1 Cash Costs include all mining, processing, general & administration
2. AISC includes C1 Cash Costs plus royalties, refining costs, sustaining capital and corporate costs

Table K: Expansion PFS Total Cost Comparisons

CAPEX ON ALTERNATIVE PROCESSING ROUTES	PFS 1.5Mtpa BIOX CASE CASE (A$M)	Scoping 2.25Mtpa FILTER Concentrate (A$M)	Scoping 1.5Mtpa Pressure Oxidation (A$M)
Direct Costs			
Earthworks	0.5	0.5	0.5
Crushing and Milling	22.7	22.7	22.7
Flotation and Tails Thickening	5.2	5.2	5.2
CIL	2.4		2.7
Concentrate Thickening	0.2	2.9	
BIOX	1.3		
CCD	0.2		2.2
Neutralisation	0.2		0.1
Reagents	0.9	0.9	0.9
Pressure Oxidation and Packages			36.3
Air Services, Piping and Electrical	7.6	7.8	8.3
Plant Refurbishment - sulphide plant	28.3	0.3	9.4
DIRECT SUB TOTAL	69.6	40.2	88.3
INDIRECT SUB TOTAL	15.0	14.4	21.7
Miscellaneous Costs			
Owner's Costs	6.8	6.6	7.0
Infrastructure	5.1	5.1	5.1
Contingency	17.4	9.4	18.9
Contingency %	18%	14%	16%
SUB TOTAL	29.4	21.1	31.0
GRAND TOTAL	**113.9**	**75.7**	**140.9**

On the completion of the Expansion, the free milling circuit and the sulphide circuit will run in parallel as two processing facilities, with total capacity of up to 3.3Mtpa. Significantly, the base case BIOX® route has an estimated capital cost of A$113.9 million or A$77/oz per oz of production, which the Company believes is outstanding compared to its Western Australian gold developer peers.

Approvals

Matilda Operations Pty Ltd, a 100% owned subsidiary of Blackham, has an existing Department of Environment and Regulation (DER) License to operate under the Environmental Protection Act 1986. The licence primarily allows for the processing of ore, mine dewatering and discharge, plus other activities required for the Operation. The DER approved an amendment to the license in 2016 permitting the construction and operation of TSF J and an increase to the processing plant throughput to 1.8 Mtpa. An amendment to this License is required to expand production to 3.3Mtpa and to permit the construction of TSF K.

Matilda Operations Pty Ltd also has licences in place from the Department of Water (DoW) required for abstraction of water for use in processing of ore and dewatering for mining purposes at the Operation.

The Mining Proposals and Mine Closure Plans for the Wiluna underground are approved for the current operation. However, the Wiluna Mining Proposals must be amended to account for the proposed cutbacks on the Wiluna open pits. While most of these areas are disturbed as a result of historic mining operations, some survey work may be required. A desktop study by Animal Plant Mineral (APM) is

underway to identify any information gaps and to ensure the Wiluna Mining Proposal aligns with the latest (2016) DMP Guidelines. Furthermore, Environmental Geochemistry International Pty Ltd (EGI) is progressing geochemical characterisation of the mine waste material at Wiluna as an additional contribution to the Mining Proposals and Mine Closure Plans.

Gold Resources increased 21% in the last year

The Matilda & Wiluna Gold Operation's **61Mt @ 3.1g/t for 6.2Moz** gold Resources are to JORC 2012 standard (see Table L) and are all within a 20km radius of the Wiluna Gold Plant. **32Mt @ 3.1g/t for 3.0Moz** (51%) are in the Measured and Indicated Resource category.

Table L: Matilda & Wiluna Gold Operation Gold Resources

OPEN PIT RESOURCES												
Mining Centre	Measured			Indicated			Inferred			Total 100%		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine OP	0.9	1.5	44	6.1	1.7	340	4.1	1.4	185	11.1	1.6	**569**
Galaxy	0.7	1.4	32	0.1	3.7	5	0.2	2.8	16	1.0	1.6	**53**
Williamson Mine				3.3	1.6	170	3.8	1.6	190	7.1	1.6	**360**
Wiluna OP[1]				10.4	2.7	920	2.5	3.1	245	12.9	2.8	**1,165**
Regent				0.7	2.7	61	3.1	2.1	210	3.8	2.2	**271**
Stockpiles				0.4	0.9	11				0.4	0.9	11
OP Total	**1.6**	**1.5**	**76**	**21**	**2.2**	**1,507**	**14**	**1.9**	**846**	**36**	**2.1**	**2,429**
UNDERGROUND RESOURCES												
Mining Centre	Measured			Indicated			Inferred			Total 100%		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Golden Age	0.1	4.2	8	0.2	7.1	46	0.6	3.8	75	0.9	4.5	**129**
Wiluna				8.7	5.2	1470	14.3	4.5	2050	23	4.8	**3,520**
Matilda Mine UG				0.1	2.5	10	0.6	3.6	70	0.7	3.6	**80**
UG Total	**0.1**	**4.2**	**8**	**9**	**5.3**	**1,526**	**16**	**4.4**	**2,195**	**25**	**4.7**	**3,729**
Grand Total	**1.7**	**1.5**	**84**	**30**	**3.1**	**3,033**	**29**	**3.2**	**3,041**	**61**	**3.1**	**6,158**

1) Wiluna Open Pit Resources are reported from inside an A$1,800/oz pit optimised resource shell.
2) Mineral Resources are reported inclusive of Ore Reserves and include all exploration and resource definition drilling information, where practicable, up to 30th April 2017.
3) The Measured component of the Matilda and Galaxy open pit Mineral Resources is based on grade control drilling and the grade is reported on a diluted basis
4) Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location shape and continuity of the occurrence and on the available sampling results. The figures in the above table are rounded to two significant figures.
5) Cut off grades used in the estimations vary between deposits and are given in ASX Announcement 3 August 2017 Appendix 1 Table 1

Following successful drilling campaigns in late 2016 and 2017, Measured, Indicated and Inferred Resource estimates were updated for the Matilda/Wiluna Gold Operation. Mineral Resources at Wiluna had previously been estimated with a focus on high grade underground mining opportunities using a 4.0g/t lower-cut. Significant lower grade mineralisation which can potentially be extracted from an open pit was not captured by previous interpretations. A geological model was completed incorporating drilling by Blackham with the mineralisation re-interpreted above a 0.3g/t lower-cut for the purposes of assessment of the Wiluna orebodies for open pit mining. For more information on the Matilda & Wiluna Gold Resources please refer to ASX announcement from 3rd August 2017. The resources in Table L are the basis for the Expansion PFS, which are based on drilling results up until June 2017 including 55,000m of drilling into the Wiluna open pits.

Over the last 3 months, Blackham has completed 22,000m of RC and diamond drilling into the north Wiluna open pits. First results, announced in the ASX release "Further outstanding Wiluna drilling results" dated 3rd July 2017, highlighted:

- Further high grade shallow mineralisation on the Happy Jack – Bulletin and Squib Lodes amenable to open pit mining
- Potential extensions along strike and at depth of the Bulletin and Happy Jack open pits and underground development

Future drilling programmes will focus on:

- Drilling the extensions of Matilda and Golden Age free milling resources to reserve confidence
- Lake Way infill drilling to lift Williamson South and Carroll-Prior oxide structures to resource confidence
- Bulletin underground infill to upgrade the majority of the mine plan to reserves

Financing and Project Implementation

Blackham continues to advance the Board approved Expansion DFS, with a view to monetarising a larger portion of its 6.2Moz Matilda/Wiluna Gold Operation. The Expansion DFS is expected to be completed by the end of the Mar'18 quarter.

To achieve the Production Targets and forecast information contained in the Expansion PFS the Company will utilise cash flows from the existing Operation but will also require a suitable funding solution. Blackham's proposed funding solution for the Expansion of the Operation will include:

- Securing a fully funded solution for the Expansion Plan
- Minimising dilution to existing Blackham shareholders
- Providing flexible funding solutions to ensure continuation of exploration and reserve definition
- Facilitating increases in the Company's current hedge facilities to lock in profit margins and decrease gold price risk

The Company believes that the robust economics associated with the expansion and the discussions with potential financiers will allow financing to be gained on attractive financing terms. The Company has appointed a financing advisor who began engaging potential financiers providers with a view to re-sizing the current debt facility. The Company has received a number of expressions of interests in the financing of the Expansion Plan. The Company plans to continue discussions with financiers in parallel to the completion of its Expansion DFS.

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Competent Persons Statement

The information contained in the report that relates to Exploration Targets and Exploration Results at the Matilda/Wiluna Gold Operation is based on information compiled or reviewed by Mr Bruce Kendall, who is a full-time employee and security holder of the Company. Mr Kendall is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Kendall has given consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information contained in the report that relates to all other Mineral Resources is based on information compiled or reviewed by Mr Marcus Osiejak, who is a full-time employee and security holder of the Company. Mr Osiejak, is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Osiejak has given consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

With regard to the Matilda/Wiluna Gold Operation Mineral Resources, the Company is not aware of any new information or data that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates as reported in the market announcements dated 23rd January 2017 and 3rd August 2017 continue to apply and have not materially changed.

The information contained in the report that relates to Ore Reserves for the Golden Age Underground main and Remnant areas at the Matilda/Wiluna Gold Operation is based on information compiled or reviewed by Richard Boffey. Mr Boffey confirmed that he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 JORC Edition). He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which he is accepting responsibility. Mr Boffey is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is a full time employee working for Blackham Resources Limited and prepared and reviewed the documentation for the Golden Age Underground main and Remnant areas at the Matilda Gold Project on which the Report is based, for the period ended 30 June 2017. He disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Mr Boffey verifies that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation relating to Ore Reserves.

The information contained in the report that relates to Ore Reserves for the Bulletin Sulphide and East-West underground mines at the Matilda/Wiluna Gold Operation is based on information compiled or reviewed by Matthew Keenan. Mr Keenan confirmed that he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 JORC Edition). He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which he is accepting responsibility. Mr Keenan is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is a full time employee working for Entech Pty Ltd having been engaged by Blackham Resources Ltd to prepare the documentation for the Matilda Gold Project on which the Report is based, for the period ended 30 June 2017. He disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Mr Keenan verifies that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation relating to Ore Reserves.

The information contained in the report that relates to Ore Reserves for the Open Pits at the Matilda/Wiluna Gold Operation is based on information compiled or reviewed by Steve O'Grady. Mr O'Grady confirmed that he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 JORC Edition). He is a Competent Person as defined by the JORC Code 2012 Edition, having more than five years' experience which is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which he is accepting responsibility. Mr O'Grady is a Member of The Australasian Institute of Mining and Metallurgy, has reviewed the Report to which this consent statement applies and is a full time employee working for Intermine Engineering

Consultants having been engaged by Blackham Resources Ltd to prepare the documentation for the Matilda Gold Project on which the Report is based, for the period ended 30 June 2017. He disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Mr O'Grady verifies that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in his supporting documentation relating to Ore Reserves.

APPENDIX 1 – FORWARD LOOKING AND CAUTIONARY STATEMENTS

The Board has concluded that it has a reasonable basis for providing the forward-looking statements and production targets discussed in this announcement. The Board also considers that it has reasonable basis to expect that it will be able to fund the development of the Matilda/Wiluna expansion. The detailed reasons for those conclusions are outlined throughout this announcement and all material assumptions are disclosed in this document and in the JORC table disclosures of the relevant Resource & Reserve Statements.

This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules. The Company advises that it completed a Definitive Feasibility Study in February 2016 and has now completed the Expansion PFS detailed in this announcement but some of the Production Targets and Financial Information contained in this announcement are preliminary in nature and some of the conclusions are in part based on medium-level technical and economic assessments and are insufficient to support the estimation of Ore reserves over all of the Production Targets, particularly in the later years, or to provide an assurance of economic development of the Expansion. The outcomes of this study provide a reasonable basis for the company to release the results whilst not providing an assurance of the economic development of the Expansion. This is based on the current mining inventory indicating that for the next *5* years of production most of the material can be sourced from the Reserves.

The Board confirms the results from the Expansion PFS are positive and the Board has committed to the next stage of detailed resource and engineering test work for the Expansion DFS, which is fully funded.

This announcement includes certain statements that may be deemed 'forward-looking statements'. All statements that refer to any future production, resources or reserves, exploration results and events or production that Blackham Resources Ltd ('Blackham' or 'the Company') expects to occur are forward-looking statements. Although the Company believes that the expectations in those forward-looking statements are based upon reasonable assumptions, such statements are not a guarantee of future performance and actual results or developments may differ materially from the outcomes. This may be due to several factors, including market prices, exploration and exploitation success, and the continued availability of capital and financing, plus general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance, and actual results or performance may differ materially from those projected in the forward-looking statements. The Company does not assume any obligation to update or revise its forward-looking statements, whether as a result of new information, future events or otherwise.

The Company has also appointed a financing advisor who began engaging potential debt providers with a view to re-sizing the current debt facility. The Company has received a number of expressions of interests in the financing of the Expansion Plan. The Company plans to continue discussions with debt financiers in parallel to the completion of its Expansion DFS.

Investors should note that there is no certainty that the Company will be able to secure the amount of funding required. Given the uncertainties involved, investors should not make any investment decision based solely on the results of the Expansion PFS.

All material assumptions on which the forecast financial information is based, have been included in this announcement.

This announcement makes reference to Mineral Inventory which has a portion of Inferred Mineral Resources (28%) which cannot be classified as Ore Reserves. Based on advice from relevant Competent Persons, the Company is confident, that as per the definitions in the JORC Code 2012, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued infill drilling. Investors should note that there is no certainty that the Company will be able to

convert Inferred Mineral Resources to Indicated Mineral Resources nor that the Company will be able to convert Mineral Inventory to Ore Reserves.

The lithological and structural controls on the mineralisation are well understood across the Mineral Inventory at Matilda, Galaxy, Golden Age, Williamson and Wiluna. Logging of historical and recent Blackham drilling is available in conjunction with detailed mapping and extensive historical mining documentation to provide Blackham with a high degree of confidence in the geological characteristics of the potential mines that comprise the Matilda/Wiluna Gold Operation.

Blackham has a proven track record of successfully converting existing Inferred Resources in the Mineral Inventory to Indicated Resources. Blackham has completed a significant portion of drilling aimed at converting the Inferred Resource in the Mineral Inventory to Indicated Resources for the early years of the mine life.

The Company also notes it has a total resource of 61Mt @ 3.1g/t for 6.2Moz of which only 20% has been included in the Mining Inventory. The Measured and Indicative Resource totals 31Mt @ 3.1g/t for 3.1Moz of which only 39% is included in the Expansion PFS Reserves.

The Company believes it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any Production Targets and economic evaluation based on information contained in this announcement and in particular:

- The Company is currently in production and completed a Definitive Feasibility Study in February 2016 over a significant portion of the Production Targets particularly at the front end of the mine plan.
- In relation to Mineral Resources, the Company confirms that all material assumptions and technical parameters that underpin the relevant market announcement continue to apply and have not materially changed.
- Blackham has a highly experienced management and operations team with significant experience in developing and operating Western Australian gold mines.
- 100% of the Matilda & Wiluna Gold Operation Mining Inventory is located on granted Mining Leases.
- Blackham owns 100% of the Wiluna Gold Plant and commissioned the Operation in October 2016.
- Blackham's management, operations team, contractors and consultants have many years of experience in economic studies and evaluation, geotechnical, mining, processing, engineering and environmental assessments and have sufficient experience on matters relating to underground and open pit gold mining for the Matilda & Wiluna Gold Operation.
- The Company has $19.7 Million in cash as at 30 June 2017 and is currently looking at the best solution to fund its expansion including from the expected cash flow from operations and a re-sizing of its debt levels.

APPENDIX 2

JORC Code, 2012 Edition – Table 1 (Wiluna Gold Operation)

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	Blackham Resources has used i) reverse circulation drilling to obtain 1m samples from which ~3kg samples were collected using a cone splitter connected to the rig, and ii) NQ2 or HQ core with ½ core sampling. Samples from RC and diamond drilling are reported herein. Blackham's sampling procedures are in line with standard industry practice to ensure sample representivity. Core samples are routinely taken from the right-hand-side of the cut line. For Blackham's RC and AC drilling, the drill rig (and cone splitter) is always jacked up so that it is level with the earth to ensure even splitting of the sample. It is assumed that previous owners of the project had procedures in place in line with standard industry practice to ensure sample representivity. Historically (pre-Blackham Resources), drill samples were taken at predominantly 1m intervals in RC holes, or as 2m or 4m composites in AC holes. Historical core sampling is at various intervals so it appears that sampling was based on geological observations at intervals determined by the logging geologist. At the laboratory, samples >3kg were 50:50 riffle split to become <3kg. The <3kg splits were crushed to <2mm in a Boyd crusher and pulverized via LM5 to 90% passing 75µm to produce a 50g charge for fire assay. Historical assays were obtained using either aqua regia digest or fire assay, with AAS readings. Blackham Resources analysed samples using ALS laboratories in Perth. Analytical method was Fire Assay with a 50g charge and AAS finish. Historically, gold analyses were obtained using industry standard methods; split samples were pulverized in an LM5 bowl to produce a 50g charge for assay by Fire Assay or Aqua Regia with AAS finish at the Wiluna Mine site laboratory.

Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Blackham data reported herein is RC 5.5" diameter holes. Diamond drilling is oriented NQ or HQ core Historical drilling data contained in this report includes RC, AC and DD core samples. RC sampling utilized face-sampling hammer of 4.5" to 5.5" diameter, RAB sampling utilized open-hole blade or hammer sampling, and DD sampling utilized NQ2 half core samples. It is unknown if core was orientated, though it is not material to this report. All Blackham RC drilling used a face-sampling bit.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	For Blackham RC drilling, chip sample recovery is visually estimated by volume for each 1m bulk sample bag, and recorded digitally in the sample database. For DD drilling, recovery is measured by the drillers and Blackham geotechnicians and recorded into the digital database. Recoveries were typically 100% except for the non-mineralised upper 3 or 4m. For historical drilling, recovery data for drill holes contained in this report has not been located or assessed, owing to incomplete data records. Database compilation is ongoing. RC drilling, sample recovery is maximized by pulling back the drill hammer and blowing the entire sample through the rod string at the end of each metre. Where composite samples are taken, the sample spear is inserted diagonally through the sample bag from top to bottom to ensure a full cross-section of the sample is collected. To minimize contamination and ensure an even split, the cone splitter is cleaned with compressed air at the end of each rod, and the cyclone is cleaned every 50m and at the end of hole, and more often when wet samples are encountered. Historical practices are not known, though it is assumed similar industry-standard procedures were adopted by each operator. For historical drilling with dry samples it is unknown what methods were used to ensure sample recovery, though it is assumed that industry-standard protocols were used to maximize the representative nature of the samples, including dust-suppression and rod pull-back after each drilled interval. For wet samples, it is noted these were collected in polyweave bags to allow excess water to escape; this is standard practice though can lead to biased loss of sample material into the suspended fine sample fraction. For DD drilling, sample recovery is maximised by the use of short drill runs (typically 1.5m) and triple tube splits for HQ3 drilling. For Blackham drilling, no such relationship was evaluated as sample recoveries were generally excellent.

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 samples have been logged for geology, alteration, mineralisation, weathering, geotechnical properties and other features to a level of detail considered appropriate for geological and resource modelling. Logging of geology and colour for example are interpretative and qualitative, whereas logging of mineral percentages is quantitative. All holes were logged in full. Core photography was taken for BLK diamond drilling.
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.*	For core samples, Blackham uses half core cut with an automatic core saw. Samples have a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. A cut line is routinely drawn at an angle 10 degrees to the right of the orientation line. Where no orientation line can be drawn, where possible samples are cut down the axis of planar features such as veins, such that the two halves of core are mirror images. For historical drilling sampling techniques and preparation are not known. Historical core in storage is generally half core, with some quarter core remaining; it is assumed that half core was routinely analysed, with quarter core perhaps having been used for check assays or other studies. Holes have been selectively sampled (visibly barren zones not sampled, though some quartz vein intervals have been left un-sampled), with a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. RC sampling with cone splitting with 1m samples collected. 4m scoop composites compiled from individual 1m samples. RC sampling with riffle or cone splitting and spear compositing is considered standard industry practice. For historical samples the method of splitting the RC samples is not known. However, there is no evidence of bias in the results Blackham drilling, 1m RC samples were split using a cone splitter. Most samples were dry; the moisture content data was logged and digitally captured. Where it proved impossible to maintain dry samples, at most three consecutive wet samples were obtained before drilling was abandoned, as per procedure. AC samples were 4m composites; Boyd <2mm crushing and splitting is considered to be standard industry practice; each sample particle has an equal chance of entering the split chute. At the laboratory, >3kg samples are split so they can fit into a LM5 pulveriser bowl. At the laboratory, >3kg samples are split 50:50 using a riffle splitter so they can fit into a LM5

		pulveriser bowl. Field duplicates were collected approximately every 40m down hole for Blackham holes. With a minimum of one duplicate sample per hole. Analysis of results indicated good correlation between primary and duplicate samples. RC duplicates are taken using the secondary sample chute on the cone splitter. AC duplicates were scooped in the field. It is not clear how the historical field duplicates were taken for RC drilling. Riffle splitting and half-core splitting are industry-standard techniques and considered to be appropriate. Note comments above about samples through 'stope' intervals; these samples don't represent the pre-mined grade in localized areas. For historical drilling, field duplicates, blank samples and certified reference standards were collected and inserted from at least the early 2000's. Investigation revealed sufficient quality control performance. No field duplicate data has been located or evaluated in earlier drilling. Field duplicates were collected every 20m down hole for Blackham holes. Analysis of results indicated good correlation between primary and duplicate samples. Sample sizes are considered appropriate for these rock types and style of mineralisation, and are in line with standard industry practice.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Fire assay is a total digestion method. The lower detection limits of 0.01ppm is considered fit for purpose. For Blackham drilling, ALS completed the analyses using industry best-practice protocols. ALS is globally-recognized and highly-regarded in the industry. Historical assaying was undertaken at Amdel, SGS, and KalAssay laboratories, and by the on-site Agincourt laboratory. The predominant assay method was by Fire Assay with AAS finish. The lower detection limit of 0.01ppm Au used is considered fit for purpose. No geophysical tools were required as the assays directly measure gold mineralisation. For Blackham drilling, down-hole survey tools were checked for calibration at the start of the drilling program and every two weeks. Comprehensive programs of QAQC have been adopted since the 1980's. For Blackham drilling certified reference material, blanks and duplicates were submitted at approximately 1:20. Check samples are routinely submitted to an umpire lab at 1:20 ratio. Analysis of results confirms the accuracy and precision of the assay data. It is understood that previous explorers great Central Mines, Normandy and Agincourt employed QAQC sampling, though digital capture of the data is ongoing, and historical QAQC data have not been assessed. Results show good correlation between original and repeat analyses with very few samples plotting outside acceptable ranges (+/- 20%).

Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	Blackham's significant intercepts have been verified by several company personnel, including the database manager and exploration manager. There were 4 twin holes drilled within 10m of the original historical hole. Analysis of these did not indicate any bias between drill types or between historical and recent holes. Holes within 5m of each other generally show a good correlation between intercept grades. Holes with intercept pierce points up to 40m apart were also compared. Again there was no bias, however, correlation between intercepts was generally poor when intercepts were greater than 20m apart reflecting the short range variability expected in a gold orebody like Wiluna Wiluna data represents a portion of a large drilling database compiled since the 1930's by various project owners. Data is stored in Datashed SQL database. Internal Datashed validations and validations upon importing into Micromine were completed, as were checks on data location, logging and assay data completeness and down-hole survey information. QAQC and data validation protocols are contained within Blackham's manual "Blackham Exploration Manual 2017v2". Historical procedures are not documented. The only adjustment of assay data is the conversion of lab non-numeric code to numeric for estimation.
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 historical holes appear to have been accurately surveyed to centimetre accuracy. Blackham's drill collars are routinely surveyed using a DGPS with centimetre accuracy, though coordinates reported herein are GPS surveyed to metre-scale accuracy. Grid systems used in this report are Wil10 local mine grid and GDA 94 Zone 51 S. Drilling collars were originally surveyed in either Mine Grid Wiluna 10 or AMG, and converted in Datashed to MGA grid. An accurate topographical model covering the mine site has been obtained, drill collar surveys are closely aligned with this. Away from the mine infrastructure, drill hole collar surveys provide adequate topographical control.

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.*	Blackham's exploration holes are generally drilled 25m apart on east-west sections, on sections spaced 50m apart north-south. Using Blackham's drilling and historical drilling, a spacing of approximately 12.5m (on section) by 20m (along strike) is considered adequate to establish grade and geological continuity. Areas of broader drill spacing have also been modelled but with lower confidence. The mineralisation lodes show sufficient continuity of both geology and grade between holes to support the estimation of resources which comply with the 2012 JORC guidelines Samples have been composited only where mineralisation was not anticipated. Where composite samples returned significant gold values, the 1m samples were submitted for analysis and these results were prioritized over the 4m composite values.
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.*	Drill holes were generally orientated perpendicular to targets to intersect predominantly steeply-dipping north-south or northeast-southwest striking mineralisation. The perpendicular orientation of the drillholes to the structures minimises the potential for sample bias.
Sample security	*The measures taken to ensure sample security.*	It is not known what measures were taken historically. For Blackham drilling, Drill samples are delivered to McMahon Burnett freight yard in Wiluna by Blackham personnel, where they are stored in a gated locked yard (after hours) until transported by truck to the laboratory in Perth. In Perth the samples are likewise held in a secure compound.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No external audit has been completed for this resource estimate. For Blackham drilling, data has been validated in Datashed and upon import into Micromine. QAQC data has been evaluated and found to be satisfactory.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	The drilling is located wholly within M53/6, M53/200, M53/44, M53/40, M53/30, M53/468, M53/96, M53/32. The tenements are owned 100% by Matilda Operations Pty Ltd, a wholly owned subsidiary of Blackham Resources Ltd. The tenements are in good standing and no impediments exist. Franco Nevada have royalty rights over the Wiluna Mine mining leases of 3.6% of net gold revenue.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Modern exploration has been conducted on the tenement intermittently since the mid-1980's by various parties as tenure changed hands many times. This work has included mapping and rock chip sampling, geophysical surveys and extensive RAB, RC and core drilling for exploration, resource definition and grade control purposes. This exploration is considered to have been successful as it led to the eventual economic exploitation of several open pits during the late 1980's / early 1990's. The deposits remain 'open' in various locations and opportunities remain to find extensions to the known potentially economic mineralisation.
Geology	*Deposit type, geological setting and style of mineralisation.*	The gold deposits are categorized as orogenic gold deposits, with similarities to most other gold deposits in the Yilgarn region. The deposits are hosted within the Wiluna Domain of the Wiluna greenstone belt.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*	There is no new drilling information included in this release

	dip and azimuth of the hole *down hole length and interception depth* *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	In the significant intercepts are reported as length-weighted averages, above a 1m @ 0.6g/t cut-off, or > 1.2 gram x metre cut off (to include narrow higher-grade zones) using a maximum 2m contiguous internal dilution. For the body of the report and in Figures, wider zones of internal dilution are included for clearer presentation. AC intercepts are based on 4m composites. High-grade internal zones are reported at a 5g/t envelope, e.g. MADD0018 contains 14.45m @ 6.74g/t from 162.55m including 4.4m @ 15.6g/t from 162.55m. No metal equivalent grades are reported because only Au is of economic interest.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Lode geometries at Wiluna are generally steeply east or steeply west dipping. Generally the lodes strike north-northeast. Historical drilling was oriented vertically or at -60° west, the latter being close to optimal for the predominant steeply-east dipping orientation. Drill holes reported herein have been drilled as closed to perpendicular to mineralisation as possible. In some cases due to the difficulty in positioning the rig close to remnant mineralisation around open pits this is not possible.

Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See body of this report.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Full reporting of the historical drill hole database of over 80,000 holes is not feasible.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Other exploration tests are not the subject of this report.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Follow-up resource definition drilling is likely, as mineralisation is interpreted to remain open in various directions. Diagrams are provided in the body of this report.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• All data has been uploaded using Datashed which incorporates a series of internal checks. • The Wiluna dataset has been validated in Datashed and Surpac using internal validation macros and checks. Holes have been checked and corrected where necessary for: • Intervals beyond EOH depth • Overlapping intervals • Missing intervals • Holes with duplicate collar co-ordinates (i.e. same hole with different names) • Missing dip / azimuth • Holes missing assays • Holes missing geology
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.*	• The site is regularly visited by the Competent Person, and no problems were identified.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The interpretation of the mineralisation was carried out using a methodical approach to ensure continuity of the geology and estimated mineral resource using Surpac software. The confidence in the geology and the associated mineralisation is high. • All available geological data was used in the interpretation including mapping, drilling, oxidation surfaces and interpretations of high grade ore shoots. Only diamond and reverse circulation drilling samples were used in the final estimate however all available grade control data was used in the geological assessment. • For the Wiluna open pit resources a lower cut-off grade of 0.3g/t was used for geological modelling. Underground mineralisation and was modelled to a 4g/t lower cut. • No alternate interpretations have been completed. The current interpretation follows similar methodology to that used historically. • Drill logging has been used to constrain the 3D wireframes. • Gold mineralisation is predominantly associated with second to third order north and northeast trending brittle to brittle-ductile dextral strike-slip faults, localised at dilational bends or jogs along faults, at fault

		intersections, horsetail splays and in subsidiary overstepping faults.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Wiluna mine comprises a number of separate ore bodies. Individual ore bodies range in strike length up to 1500m and extends to ~1000m below surface and remains open. Widths vary for individual lodes between 1m and 40m.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.*	• The sample domains were flagged into an Access database from a validated wireframe. Samples that fell within previously mined (stoped) wireframes were excluded to minimise any bias. • A composites string-file was then created in Surpac with a 2.0 m composite length and a minimum percentage of sample to include at 50%. • Only Reverse Circulation (RC) and Diamond Drilling were used in the estimate. • Resource estimation for the east and west lode Wiluna mineralisation was completed using Localised Uniform Conditioning (LUC) for Gold (Au) and Inverse Distance and Regression Analysis for Sulphur (S) and Arsenic (As). Blockmodel field coding was used to constrain the estimate. All other Wiluna estimates were completed using Ordinary Kriging. • Soft boundaries were utilised between the oxidation surfaces. Only samples contained within each individual ore wireframe were used for the estimate of that lode. • Check estimates were completed using Ordinary Kriging (OK) and Inverse Distance methods. • The modelled wireframes were used to create a blockmodel with a user block 5mE by 3mN by 2.5mRL which relates to an SMU. No sub-blocking was applied. • Specifically, for the Golden Age narrow vein a user block size of 2mE by 2mN by 2mRL. The model used variable sub-blocking to 0.5mE by 0.5mN by 0.5mRL. The smaller block sizes are based on the narrow nature of the Golden Age ore body and the corresponding data density. • The shape of the search ellipsoid was determined with due consideration given to the anisotropy in the variogram models. In addition, some visual inspections, using tools available in Isatis, were undertaken to assess the pattern of informing sample selection. The search ellipsoid radii ratios were then chosen to provide an optimal sample neighbour selection for estimation. • The minimum and maximum allowable number of samples were chosen using Quantitative Kriging Neighbourhood Analysis ("QKNA"). QKNA makes use of kriging quality statistics, in this case the Slope of Regression, Weight of the Mean and Negative Weights statistics, to select optimal minimum and maximum values for estimation. • The search neighbourhood radii were chosen to be as small as possible while still fulfilling the requirement of filling all blocks in the estimation domains with estimates. • Topcuts were determined from statistical analysis. A number of factors were taken into consideration when

	• *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	determining the top-cuts including: • The disintegration point of the data on the probability plots; • Having a coefficient of variance (CV) under 2.0; and • Reviewing the model (block) grades against the composites. • The estimate was validated using a number of techniques including but not limited to: • A visual comparison of block grade estimates and the drill hole data; • A comparison of the composite and estimated block grades; • A comparison of the estimated block grades for the ordinary kriged model against an inverse distance model. • A comparison of the estimated block grades for ordinary kriged models using different cut-off grades for the composites. • A comparison of the estimated block grades against the composite grades along northings.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The nominal cut-off grade of applied for the individual resource areas appears to be a natural cut-off between mineralised veins and host rock as determined from analysis of log probability plots of all samples at each prospect. • The open pit resource was reported at 0.5g/t cutoff in oxide and at 1.0g/t cutoff in transitional and fresh in A$1,800/oz Shell while the underground was reported at 2.00g/t in fresh rock outside the shell. • A global reporting cut-off grade of 3.00g/t was applied to the Golden Age underground resource. This is based on the understanding that a variety of underground mining techniques (including but not exclusive to) air-legging may be used. • For the remaining resources a cut-off of 0.5g/t was applied in the in the oxide and 1.0g/t in transitional when relevant. In fresh rock less than 200m below the surface a 2.0g/t cut-off was applied for the remaining resources.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining*	• No specific mining factors or assumptions have been applied.

	methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Wiluna ores are typically extremely refractory, with most gold occurring in either solid solution or as submicroscopic particles within fine-grained sulphides. Historically Au recovery through the Wiluna BIOX plant averaged 83%. Any sulphide mineralisation would be treated through the same processing plant and therefore it is assumed that recoveries will be similar. • Golden Age mineralisation is free milling/oxide gold; this is located throughout the quartz but appears more concentrated where there are stylolites. There is commonly a strong base metals signature with galena, chalcopyrite, sphalerite and pyrite being common. These areas also include higher grades but the gold is not associated with the sulphides as with the refractory ore. The mineralization is mainly in the quartz reef but there are some splays of quartz, especially to the footwall which can contain gold.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential*	• No environmental, permitting, legal, taxation, socio-economic, marketing or other relevant issues are known, that may affect the estimate.

	environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk densities were assigned as 2.00 t/m3 for oxide, 2.50 t/m3 for transitional and 2.80 t/m3 • A total of 16,206 bulk density determinations have been collected by extensive sampling of diamond drill core in Calais – Henry 5, East Lode North and Calvert areas throughout the orebody and in wallrock adjacent to the mineralisation. All sections of the underground resource are in primary rock, and Bulk Density values are relatively uniform throughout. • Bulk Density determinations were completed by Apex staff for every assayed interval since the commencement of Apex's involvement with the project to the end of 2008. In addition, in areas where Apex bulk density determinations are considered too sparse, pre-Apex diamond core has been used for determinations.

Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*
		• A range of criteria were considered when addressing the suitability of the classification boundaries to the resource estimate.
		  • Geological continuity and volume models;
		  • Drill spacing and available mining information;
		  • Modelling technique
		  • Estimation properties including search strategy, number of informing composites, average distance of composites from blocks, number of drillholes used and kriging quality parameters.
		  • The classification of the blocks was also visually checked and adjusted to remove any "spotted dog" effects. No measured resources were calculated.
		  • A "skin" surrounding existing stope voids (equal to the volume of the voids) has been classified as inferred to highlight the associated mining risk.
		• Estimated blocks that have been informed by predominantly historical drilling where QA/QC data has not been reviewed were assigned as inferred.

Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Audits have been undertaken on the resource estimates completed by Apex Minerals in 2012. No major issues were discovered and recommendations made from those audits have been assessed and included where required in subsequent estimates.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• This resource estimate is intended for both underground and open pit mining assessment and reports global estimates.

JORC Code, 2012 Edition – Table 1 (Matilda)

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of*	• Blackham Resources has used i) reverse circulation drilling to obtain 1m samples from which ~3kg samples were collected using a cone splitter connected to the rig, and ii) NQ2 or HQ core with ½ core sampling. Samples from RC and diamond drilling are reported herein. • Blackham's sampling procedures are in line with standard industry practice to ensure sample representivity. Core samples are routinely taken from the right-hand-side of the cut line. For Blackham's RC and AC drilling, the drill rig (and cone splitter) is always jacked up so that it is level with the earth to ensure even splitting of the sample. It is assumed that previous owners of the project had procedures in place in line with standard industry practice to ensure sample representivity. • Historically (pre-Blackham Resources), drill samples were taken at predominantly 1m intervals in RC holes, or as 2m or 4m composites in AC holes. Historical core sampling is at various intervals so it appears that sampling was based on geological observations at intervals determined by the logging geologist. • At the laboratory, samples >3kg were 50:50 riffle split to become <3kg. The <3kg splits were crushed to <2mm in a Boyd crusher and pulverized via LM5 to 90% passing 75µm to produce a 50g charge for fire assay. Historical assays were obtained using either aqua regia digest or fire assay, with AAS readings. Blackham Resources analysed samples using ALS and SGS laboratories in Perth. Analytical method was Fire Assay with a 50g charge and AAS finish. Historically, gold analyses were obtained using industry standard methods; split samples were pulverized in an LM5 bowl to produce a 50g charge for assay by Fire Assay or Aqua Regia with AAS finish at the Wiluna Mine site laboratory

	detailed information.	
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Blackham data reported herein is RC 5.5" diameter holes. Diamond drilling is oriented NQ or HQ core. Core is orientated where possible using a Reflex ACT III tool or similar • Historical drilling data contained in this report includes RC, AC and DD core samples. RC sampling utilized face-sampling hammer of 4.5" to 5.5" diameter, RAB sampling utilized open-hole blade or hammer sampling, and DD sampling utilized NQ2 half core samples. It is unknown if core was orientated, though it is not material to this report. All Blackham RC drilling used a face-sampling bit.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• For Blackham RC drilling, chip sample recovery is visually estimated by volume for each 1m bulk sample bag, and recorded digitally in the sample database. For DD drilling, recovery is measured by the drillers and Blackham geotechnicians and recorded into the digital database. Recoveries were typically 100% except for the non-mineralised upper 3 or 4m. For historical drilling, recovery data for drill holes contained in this report has not been located or assessed, owing to incomplete data records. Database compilation is ongoing. • RC drilling, sample recovery is maximized by pulling back the drill hammer and blowing the entire sample through the rod string at the end of each metre. Where composite samples are taken, the sample spear is inserted diagonally through the sample bag from top to bottom to ensure a full cross-section of the sample is collected. To minimize contamination and ensure an even split, the cone splitter is cleaned with compressed air at the end of each rod, and the cyclone is cleaned every 50m and at the end of hole, and more often when wet samples are encountered. Historical practices are not known, though it is assumed similar industry-standard procedures were adopted by each operator. For historical drilling with dry samples it is unknown what methods were used to ensure sample recovery, though it is assumed that industry-standard protocols were used to maximize the representative nature of the samples, including dust-suppression and rod pull-back after each drilled interval. For wet samples, it is noted these were collected in polyweave bags to allow excess water to escape; this is standard practice though can lead to biased loss of sample material into the suspended fine sample fraction. For DD drilling, sample recovery is maximised by the use of short drill runs (typically 1.5m) and triple tube splits for HQ3 drilling. • For Blackham drilling, no such relationship was evaluated as sample recoveries were generally excellent.
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*	• Drill samples have been logged for geology, alteration, mineralisation, weathering, and other features to a level of detail considered appropriate for geological and resource modelling. • Logging of geology and colour for example are interpretative and qualitative, whereas logging of mineral percentages is quantitative. • All holes were logged in full. • Core photography was taken for BLK diamond drilling.

	nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections 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.*	• For core samples, Blackham uses half core cut with an automatic core saw. Samples have a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. A a cut line is routinely drawn at an angle 10 degrees to the right of the orientation line. Where no orientation line can be drawn, where possible samples are cut down the axis of planar features such as veins, such that the two halves of core are mirror images. • For historical drilling sampling techniques and preparation are not known. Historical core in storage is generally half core, with some quarter core remaining; it is assumed that half core was routinely analysed, with quarter core perhaps having been used for check assays or other studies. Holes have been selectively sampled (visibly barren zones not sampled, though some quartz vein intervals have been left un-sampled), with a minimum sample width of 0.3m and maximum of 1.2m, though typically 1m intervals were selected. • RC sampling with cone splitting with 1m samples collected. 4m scoop composites compiled from individual 1m samples. RC sampling with riffle or cone splitting and spear compositing is considered standard industry practice. • For historical samples the method of splitting the RC samples is not known. However, there is no evidence of bias in the results • Blackham drilling, 1m RC samples were split using a cone splitter. Most samples were dry; the moisture content data was logged and digitally captured. Where it proved impossible to maintain dry samples, at most three consecutive wet samples were obtained before drilling was abandoned, as per procedure. AC samples were 4m composites; • Boyd <2mm crushing and splitting is considered to be standard industry practice; each sample particle has an equal chance of entering the split chute. At the laboratory, >3kg samples are split so they can fit into a LM5 pulveriser bowl. At the laboratory, >3kg samples are split 50:50 using a riffle splitter so they can fit into a LM5 pulveriser bowl. • Field duplicates were collected approximately every 40m down hole for Blackham holes. With a minimum of one duplicate sample per hole. Analysis of results indicated good correlation between primary and duplicate samples. RC duplicates are taken using the secondary sample chute on the cone splitter. AC duplicates were scooped in the field. It is not clear how the historical field duplicates were taken for RC drilling. • Sample sizes are considered appropriate for these rock types and style of mineralisation, and are in line with standard industry practice. • Chevron collected field duplicates at 1:20 ratio for the majority of historical RC drilling; samples showed good repeatability above 5g/t, though sample pairs show notable scatter at lower grades owing to the

		nugget effect. It is not clear how the historical field duplicates were taken for RC drilling. • Sample sizes are considered appropriate for these rock types and style of mineralisation, and are in line with standard industry practice.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Fire assay is a total digestion method. The lower detection limits of 0.01ppm is considered fit for purpose. For Blackham drilling, SGS completed the analyses using industry best-practice protocols. SGS is globally-recognized and highly-regarded in the industry. Historical assaying was undertaken at Amdel, SGS, and KalAssay laboratories, and by the on-site Agincourt laboratory. The predominant assay method was by Fire Assay with AAS finish. The lower detection limit of 0.01ppm Au used is considered fit for purpose. • No geophysical tools were required as the assays directly measure gold mineralisation. For Blackham drilling, down-hole survey tools were checked for calibration at the start of the drilling program and every two weeks. • Comprehensive programs of QAQC have been adopted since the 1980's. For Blackham drilling certified reference material, blanks and duplicates were submitted at approximately 1:40. Check samples are routinely submitted to an umpire lab at 1:20 ratio. Analysis of results confirms the accuracy and precision of the assay data. It is understood that previous explorers great Central Mines, Normandy and Agincourt employed QAQC sampling, though digital capture of the data is ongoing, and historical QAQC data have not been assessed. Results show good correlation between original and repeat analyses with very few samples plotting outside acceptable ranges (+/- 20%).
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Blackham's significant intercepts have been verified by several company personnel, including the database manager and exploration manager. • There were no twinned holes drilled in this program. Drilling has been designed at different orientations, to help correctly model the mineralisation orientation. • Wiluna data represents a portion of a large drilling database compiled since the 1930's by various project owners. • Data is stored in Datashed SQL database. Internal Datashed validations and validations upon importing into Micromine were completed, as were checks on data location, logging and assay data completeness and down-hole survey information. QAQC and data validation protocols are contained within Blackham's manual "Blackham Exploration Manual 2016v2". Historical procedures are not documented. • The only adjustment of assay data is the conversion of lab non-numeric code to numeric for estimation.
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.*	• Downhole surveys are taken every ~5 or 10m using a gyro tool for RC drilling. • All historical holes appear to have been accurately surveyed to centimetre accuracy. • Blackham's drill collars are routinely surveyed using a DGPS with centimetre accuracy, though coordinates reported herein are GPS surveyed to metre-scale accuracy. All historical drill holes at Matilda appear to have been accurately surveyed.

	• *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• MGA Zone 51 South. • Height data (Australian height datum) is collected with DGPS and converted to local relative level using a factor. Prior to DGPS surveys, relative levels are estimated based on data for nearby historical holes. • A topographical survey has been flown with 30cm vertical accuracy, which has been used to determine historical pre-Blackham collar RL's.
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.*	• Blackham's exploration holes are generally drilled 25m apart on east-west sections, on sections spaced 50m apart north-south. • Using Blackham's drilling and historical drilling, a spacing of approximately 12.5m (on section) by 20m (along strike) is considered adequate to establish grade and geological continuity. Areas of broader drill spacing have also been modelled but with lower confidence. • The mineralisation lodes show sufficient continuity of both geology and grade between holes to support the estimation of resources which comply with the 2012 JORC guidelines • Samples have been composited only where mineralisation was not anticipated. Where composite samples returned significant gold values, the 1m samples were submitted for analysis and these results were prioritized over the 4m composite values.
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.*	• Drill holes were generally orientated perpendicular to targets to intersect predominantly steeply-dipping north-south or northeast-southwest striking mineralisation. However, around the historical pits optimal drill sites were not always available, so alternative orientations were used • The perpendicular orientation of the drillholes to the structures minimises the potential for sample bias
Sample security	• *The measures taken to ensure sample security.*	• Drill samples are delivered to McMahon Burnett freight yard in Wiluna by Blackham personnel, where they are stored in a gated locked yard (after hours) until transported by truck to the laboratory in Perth. In Perth the samples are likewise held in a secure compound.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No such audits or reviews have been undertaken as they are not considered routinely required; review will be conducted by external resource consultants when resource estimates are updated.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	• The drilling is located wholly within M53/34. The tenements are owned 100% by Kimba Resources Ltd, a wholly owned subsidiary of Blackham Resources Ltd. The tenement sits within the Wiluna Native Title area, and a mining heritage agreement is in place with the Native Title holders. • The tenement is in good standing and no impediments exist. • Franco Nevada have royalty rights over the Matilda Mine mining leases. On the Matilda Mining Leases, a royalty of between 3 to 5% of gold revenue of is payable.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historical artisanal mining was conducted on the M53/34 tenement and most historical workings have now been incorporated into the modern open pits. Modern exploration has been conducted on the tenement intermittently since the mid-1980's by various parties as tenure changed hands many times. This work has included mapping and rock chip sampling, geophysical surveys and extensive RAB, RC and core drilling for exploration, resource definition and grade control purposes. This exploration is considered to have been successful as it led to the eventual economic exploitation of several open pits during the late 1980's / early 1990's.The deposits remain 'open' in various locations and opportunities remain to find extensions to the known potentially economic mineralisation.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The gold deposits are categorized as orogenic gold deposits, with similarities to most other gold deposits in the Yilgarn region. The deposits are hosted within the Matilda Domain of the Wiluna greenstone belt. Rocks in the Matilda Domain have experienced Amhibolite-grade regional metamorphism. At the location of this drilling, the Matilda Domain is comprised of a fairly monotonous sequence of highly sheared basalts. Gold mineralisation is related to early deformation events, and it appears the lodes have also been disrupted by later shearing / faulting on the nearby Erawalla Fault, as well as later cross-faults.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	• There is no new drilling information included in this release

	○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No significant intercepts reported
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Various lode geometries are observed at Matilda, including east-dipping, west-dipping and flat-lying geometries. Generally the lodes strike north-northeast. Historical drilling was oriented vertically or at -60° west, the latter being close to optimal for the predominant steeply-east dipping orientation. Blackham's drill holes are not always drilled at optimal drill angles, i.e. perpendicular to mineralisation, owing to these various geometries, limitations of the rig to drilling >35° angled holes, and difficulty in positioning the rig close to remnant mineralisation around open pits. See significant intercepts Table 1 for estimates of mineralisation true widths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See body of this report.

Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Full reporting of the historical drill hole database of over 40,000 holes is not feasible.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Other exploration tests are not the subject of this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Follow-up resource definition drilling is likely, as mineralisation is interpreted to remain open in various directions. • Diagrams are provided in the body of this report.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data is validated upon upload into the Datashed database such that only codes within the various code libraries are accepted. Assay data is loaded from digital files. • Data is subsequently validated using Datashed validation macros, and then in Micromine and Surpac using validation macros. Data is checked for holes that are missing data, intervals that are missing data, missing intervals, overlapping intervals, data beyond end-of-hole, holes missing collar co-ordinates, and holes with duplicate collar co-ordinates.

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.*	• The site is regularly visited by the Competent Person, and no problems were identified.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The deposit has previously been mined, which has confirmed the geological interpretation. • Geological data used includes lithology, mineral percentages (such as quartz veining and sulphides) to identify lode positions, and weathering codes and rock colour to model the weathering domains. Gold mineralisation is known to relate to quartz and sulphide content. Weathering codes are assumed to have been logged consistently by various geologists, though it is likely that some of the variations between drill holes are due to different logging styles or interpretations. • A high degree of confidence is placed on the geological model, owing to the tight drill spacing. Any alternative model interpretations are unlikely to have a significant impact on the resource classification. • At Matilda, the host rocks are a fairly monotonous sequence of basalts, thus geology is not the primary control on the location of mineralisation. Mineral percentages (such as quartz veining and sulphides) are used as a proxy for interpreting lode positions, as are weathering codes to model the weathering domains. • Significant mineralisation is hosted within moderately north-plunging shoots, which may represent boudinaged older tabular lodes. Thus lodes are continuous down-plunge, with lesser up-dip continuity.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Matilda deposit is comprised of a number of domains; M1, M2, M3, M4, M5, M6, M8, M10 and Coles Find. These combined zones extend almost 5km along a strike of 330° and cover a width of approximately 1km. The deepest vertical interval is 395m at the M1 prospect.
Estimation and modeling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation*	• The sample domains were flagged into an Access database from a validated wireframe. • Only Reverse Circulation (RC) and Diamond Drilling were used in the estimate. • A composites string-file is created in Surpac with a 1.0 m composite length and a minimum percentage of sample to include at 30%. • Gold grades were estimated into the model by ordinary kriging using the block model field coding to constrain the estimate.

	parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modeling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade*
		• Soft boundaries was utilised between the oxidation surfaces. The majority of the deposit is currently situated within oxide.
		• Only samples contained within each individual ore wireframe were used for the estimate of that lode.
		• Incomplete historical production figures are available at a couple of the Matilda prospects. Blackham did not reconcile the current in-pit resource to the historical figures as not all grade control data was available, and the current interpretations may not match the mined lodes.
		• The production figures at the time mining operations were halted are not known. This estimation is comparable to that completed by Runge in 2013/14 and any significant differences have been accounted for through depletions, change in interpretation and additional drilling information.
		• Blackham has not made assumptions regarding recovery of by-products from the mining and processing of the Matilda Au resource.
		• No estimation of deleterious elements was carried out. Only Au was interpolated into the block model.
		• The parent block dimensions used were 10m NS by 2.5m EW by 5m vertical with sub-cells of 2.5m by 0.625m by 1.25m. The parent block size was selected on the basis of being approximately 50% of the average drill hole spacing immediately below the existing pits.
		• No assumptions were made on selective mining units.
		• Only Au assay data was available, therefore correlation analysis was not carried out.
		• The deposit mineralisation was constrained by wireframes constructed using a 0.5g/t Au cut-off grade . A minimum intercept of 2m was required with a maximum of 2m of internal dilution. The wireframes were applied as hard boundaries in the estimate.
		• The search ellipse was based on the ranges of continuity observed in the variograms along with considerations of the drillhole spacing and lode geometry. The search ellipse was rotated to best reflect the lode geometry and the geology as seen in the drilling and as described in the logging. This geometry was also supported by the variogram analysis.
		• Search passes were utilised to populate blocks using search ellipse ranges from 30 m to 60 m. Each pass incorporated a different set of sample selection criteria to ensure blocks were filled with an appropriate level of statistical confidence. A final pass of 120m was used to fill remaining blocks.
		• The relatively short search ranges for the first pass were applied in an attempt to limit grade smoothing within the very close (less than 20m) spaced drill holes.
		• Topcuts were determined from the aforementioned statistical analysis. A number of factors were taken into consideration when determining the top-cuts including:
		  ○ The disintegration point of the data on the probability plots;
		  ○ Having a coefficient of variance (CV) under 2.0; and
		  ○ Reviewing the model (block) grades against the composites.
		• The estimate was validated using a number of techniques including but not limited to:
		  ○ A visual comparison of block grade estimates and the drill hole data;

	cutting or capping. • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	○ A comparison of the composite and estimated block grades; ○ Use of SWATH plots. • A comparison of the estimated block grades for ordinary kriged models using different cut-off grades for the composites.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The nominal cut-off grade of 0.5g/t appears to be a natural cut-off between mineralised veins and host rock as determined from analysis of log probability plots of all samples at each prospect. This cut-off was used to define the mineralised wireframes. The Mineral Resource has been reported at a 0.6g/t Au cut-off above the 950mRL (which is currently the depth of the M1 pit design) and at a 2g/t cut-off below the 950mRL for M1, M2, M3, M4, M5, M6. M8 and Coles Find were reported at a 0.75g/t cut-off above the 900mRL as the estimation for these areas have remained unchanged. These values are based on BLK assumptions about economic cut-off grades for open pit and underground mining. BLK has access to previous mining reports from across all prospects at the Matilda deposit.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining*	• Blackham believes that a significant portion of the Matilda and Wiluna Deposit defined as Mineral Resources have reasonable prospects for eventual economic extraction by medium to large-scale open pit mining methods, taking into account current mining costs and metal prices and allowing for potential economic variations. Historical economic mining of similar deposits has occurred in the area.

	assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The deposit has previously been mined and successfully processed for gold extraction. Blackham's DFS metallurgical testwork has shown the resource could be economically treated using standard gravity concentration / carbon-in-leach cyanidation technology. An average recovery of 93% is expected across the oxide+transitional+fresh material.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported.*	• Blackham Resources has submitted a detailed Mine Closure Plan to the Department of Mines and Petroleum. • No environmental, permitting, legal, taxation, socio-economic, marketing or other relevant issues are known, that may affect the estimate.

	Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• BLK has now collected 564 samples for bulk density test work. The results generally match the historic values and the values used in previous resource estimates including the work completed by RPM. • Values of 2.1 t/m3 for oxide, 2.4t/m3 for transitional and 2.8t/m3 for fresh material were used.

Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*
	• *Whether the result appropriately reflects the*
		• A range of criteria were considered when addressing the suitability of the classification boundaries to the resource estimate.
		  ○ Geological continuity and volume models;
		  ○ Drill spacing and available mining information;
		  ○ Modelling technique
		  ○ Estimation properties including search strategy, number of informing composites, average distance of composites from blocks, number of drillholes used and kriging quality parameters
		• Typically the Measured portion of the resource was defined where the drill spacing was predominantly at 10m by 10m immediately below the existing pits, and continuity of mineralisation was robust or where Blackham has completed grade control models. The Indicated portion of the resource was defined where the drill spacing was predominantly at 25m by 25m and in some areas up to 40m by 40m, and continuity of

	Competent Person's view of the deposit.	mineralisation was strong. The Inferred Resource included the down depth lode extensions or minor lodes defined by sparse drilling. • Historical documents (including annual reports) provide detailed information on drilling and mining at the various prospects. A large proportion of the digital input data has been transcribed from historical written logs and validation checks have confirmed the accuracy of this transcription. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The continuity of geology is well understood as existing pits and historical mining reports provide substantial information on mineralisation controls and lode geometry. Recent BLK infill drilling has supported the interpretations. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• External audits have been completed and a comparison has been made with the previous resource estimate completed by RPM.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates*	• This resource estimate is considered appropriate for a definitive study into the mining of the Matilda deposit and reports global estimates. • The lode geometry has been verified through direct observation of existing open pit walls and from historical mining reports. Current targeted drilling has confirmed the down dip extensions of the main lodes across the deposit. BLK has a good understanding of the geology and mineralisation controls gained through study of all historical mining data. • The Mineral Resource statement relates to global estimates of tonnes and grade. • The deposit is currently being mined. Historical production figures supplied to Blackham relate to individual prospects at various stages of the mine life and no final production figures were available. Reconciliation of the current Mineral resource with historical production is not possible.

	to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

JORC Table 1, Section 4

Section 4A Estimation and Reporting of Ore Reserves for the Bulletin Sulphide and East-West underground mines

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.	The Mineral Resources used as the basis of this Ore Reserve update were released to market; • 3 August 2017
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Mineral resources are reported inclusive of ore reserves.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person was previously employed at the Wiluna Gold mine under previous owners and is familiar with the underground operations, the surrounding area and access routes and the Wiluna site infrastructure including the processing plant. The Competent Person's most recent visit to the site and underground workings was from 31st May to 3rd June 2016.
	If no site visits have been undertaken indicate why this is the case.	The Competent Person has visited the Site.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	The Ore Reserve is underpinned by mining studies conducted to a Definitive Feasibility Study level and to a Prefeasibility Level in line with the geotechnical confidence.
	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.	Modifying factors accurate to the study level have been applied based on detailed stope design analysis. Modelling indicates that the resulting mine plan is technically achievable and economically viable.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	Cut-off grades were determined based on a gold price of AU$1,600/oz. Mining and administration costs for cut-off grade estimation were sourced from the detailed DFS site cost model, based on contract rates and supplier quotes. Treatment costs were sourced from a processing PFS

Criteria	JORC Code explanation	Commentary
		recently carried out on the Wiluna Expansion by independent engineers Minnovo Pty Ltd. Metallurgical recoveries were estimated by BKM based on extensive historical sulphide plant operating data and historical metallurgical test work. Royalty estimates were provided by BKM based on current agreements.
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).	Cut-off grades and geotechnical inputs were used to apply automated optimisation algorithms on the Mineral Resource to identify economic areas. Detailed underground mine designs were then carried out on the deposit incorporating the optimisation results, and these were used as the basis of the Ore Reserve estimate.
	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 Ore Reserve is planned to be predominantly mined using a top-down mechanised longhole open stoping method, with in-situ pillars left unmined for support. Deeper areas of the Bulletin Mine have been assumed to be mined using a bottom-up modified Avoca method with unconsolidated backfill based on geotechnical advice. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation, and diesel-electric longhole rigs used for production drilling. The mining method chosen is well-known and widely used in the local mining industry, and production rates and costing can be predicted with a suitable degree of accuracy. The method has been chosen based on the spatial characteristics of the orebody, geotechnical analysis, and historical performance of similar methods used at the mine previously. Suitable access will be available to all areas through existing declines. Open pit interaction with accesses has been allowed for in designs and schedules. Dewatering and refurbishment of currently flooded workings (East-West and Bulletin Deeps) has been allowed for in the costing and schedules. Ore will be trucked to run-of-mine (ROM) pads on the surface, from where it will be hauled to the processing plant using private mine site roads by a separate road train contractor.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.	Independent geotechnical consultants Peter O'Bryan and Associates contributed appropriate geotechnical analyses to a suitable level of detail. These form the basis of mining method selection, mine design, mining factors, and ground support design for the Ore Reserve estimate.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	The Mineral Resource models used for stope optimisation are as detailed in previously in this table. Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. All Inferred Optimisations were carried out on all material, inclusive of Inferred. Inferred material contained within the mine plan was subsequently set to waste grade and the economics of the design re-evaluated for the Ore Reserve estimate.

Criteria	JORC Code explanation	Commentary
		Stope economics were determined using the cut-off grade revenue and cost inputs. A minimum stoping width of 2.0 m was applied. Sub-level intervals of 20 m and stope section strike length of 5.0 m were also applied. Some areas had a 25 m sub-level interval to fit into existing mine levels in the Bulletin upper and East Lode areas.
	The mining dilution factors used.	Dilution was applied as a factor to the stope tonnes and grades based on a dilution skin of a width as determined by detailed geotechnical analysis. Generally, this consisted of a 0.2 m dilution skin on each contact. The lower Creekshear area had a dilution of 0.3 m on each contact applied based on geotechnical advice. All dilution was assumed to be waste grade.
	The mining recovery factors used.	A 95% mining recovery factor was applied to all stoping. Mining recovery was also reduced based on exclusion of half-height rib pillars and 4.0 m thick sill pillars from the ore production, placed as required by the geotechnical analysis and to avoid down-dip migration of local failures. Ore development had an assumed 100% mining recovery, based on historical experience and industry standards.
	Any minimum mining widths used.	A pre-dilution minimum mining width of 2.0 m was assumed. This results in a minimum void width of 2.4 m for stoping (2.6 m in the lower Creekshear area) when combined with the dilution estimate, over stope sub-level intervals of 20-25 m.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. Any Inferred material contained within the Ore Reserve design had grade set to waste for the purposes of optimisation and evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material.
	The infrastructure requirements of the selected mining methods.	Most of the infrastructure required for the operations is already in place and operating at the Matilda site, including a processing plant and associated infrastructure, camp, airstrip, offices, workshops power station and surface power reticulation, borefields and coreyards. The Ore Reserve mine plan will require installation of additional infrastructure including extension of electrical power supply overhead lines, re-establishment of power, pumping and services in currently flooded workings and upgraded primary ventilation systems.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	The ore will be treated in the Wiluna processing plant., which is currently processing free-milling ore via a conventional crush-grind-gravity-separation-carbon in leach (CIL) circuit. The installed BIOX® circuit (which is currently inactive) will be re-commissioned and expanded to treat the refractory sulphide ore generated by the MGP Underground Sulphide Ore Reserve mine plan. This will provide

Criteria	JORC Code explanation	Commentary
		adequate recovery in the carbon-in-leach circuit.
	Whether the metallurgical process is well-tested technology or novel in nature.	This circuit was operated successfully on this type of material for over 20 years during previous operations.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	Enough recent processing plant production data exists to estimate metallurgical recoveries and throughput rates to a suitable degree of accuracy.
	Any assumptions or allowances made for deleterious elements.	No problematic levels of deleterious elements have been detected during test work or processing.
	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.	This circuit was operated successfully on this type of material for over 20 years during previous operations.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	The final product is gold dore, therefore this is not applicable.
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.	The MGP is currently fully permitted and operational. Historical data indicates that the rock mass is non-acid forming. Extra tailings storage will be required for the Wiluna Expansion. Some land clearance will be required for waste dump and ROM pad construction during the Wiluna Expansion works. The permitting process for these outstanding items has not commenced, however the Competent Person knows of no reason why permitting would not be granted within a reasonable time frame.
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.	Substantial infrastructure exists on-site at the MGP, which has been operating for over a year following a three-year hiatus in care and maintenance. The site is located proximal to the township of Wiluna and the all-weather Goldfields Highway. The Wiluna airport services both the mine and the town The Bulletin mine has semi-operational services provision systems installed (water, compressed air, power and

Criteria	JORC Code explanation	Commentary
		pumping). These will require some refurbishment and extension into flooded areas. The East-West mine will require re-establishment of all service provision infrastructure. Labour is currently sourced from Perth on a fly in-fly out basis. Sufficient water will be available for operations from operational borefields.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Underground mining capital costs have been estimated based on a services contract, recent vendor quotes or estimates for refurbishment of capital infrastructure following inspection by independent experts, as collated during the 2016 DFS work.
	The methodology used to estimate operating costs.	Mining operating costs have been estimated based on a detailed underground mining services contract existing between BKM and a mining contractor. Power, diesel and accommodation costs have been determined based on vendor quotes. Staff costs have been assumed based on current market salary levels. Processing operating costs were determined based on a PFS carried out by independent engineers Minnovo Pty Ltd
	Allowances made for the content of deleterious elements.	No allowance was made as no deleterious elements are expected, based on metallurgical testwork.
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	Single commodity pricing for gold only, using a long-term gold price of AU$1,600 per ounce per BKM corporate guidance. The Competent Person considers this to be an appropriate commodity price assumption based on the current environment.
	The source of exchange rates used in the study.	All costs and revenues have been estimated in Australian dollars. No exchange rate adjustments were required.
	Derivation of transportation charges.	All ore transportation charges are based on supplier quotes. This cost component has been used to determine the cut-off grades as well as applied to the operating cash flow estimate.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Refining and product transport costs have been provided by BKM based on current agreements. No penalties will be applicable to the gold doré product.
	The allowances made for royalties payable, both Government and private.	A Western Australian State Government royalty of 2.5% has been applied. An additional 3.6% third party royalty has been applied based on advice from BKM.
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.	Forecasts for head grade delivered to the plant are based on detailed mine plans and mining factors. Revenue has been based on the commodity price and exchange data provided by BKM. Single commodity pricing for gold only, using a long-term gold price of A$1,600 per ounce, with a 2.5% WA State Government royalty and additional 3.6% third party royalty.

Criteria	JORC Code explanation	Commentary
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	The assumed gold price is per BKM Corporate Guidance.
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.	Gold doré from the mine is further refined at an independent LMBA certified refiner, and then then sold to the company's various gold sale counterparties
	A customer and competitor analysis along with the identification of likely market windows for the product.	NA
	Price and volume forecasts and the basis for these forecasts.	Gold doré from the mine is to be forecast to be sold at AUD1600/Auoz
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Not an industrial mineral so not applicable.
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.	The Ore Reserve estimate is based on a financial model for that has been prepared from inputs at a minimum pre-feasibility study level of accuracy. All inputs from mining operations, processing, transportation and sustaining capital as well as contingencies have been scheduled and evaluated to generate a full life of mine cost model. Economic inputs have been sourced from suppliers or generated from database information relating to the relevant area of discipline. A discount rate of 7% has been applied. The NPV of the project is positive at the assumed commodity price. The Competent Person is satisfied that the project economics based on mining the Ore Reserve retains a suitable margin of profitability against reasonably foreseeable commodity price movements.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The project is still economically viable at unfavourable commodity price adjustments of 10%.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	The MGP is currently operational. BKM will continue to communicate and negotiate in good faith with key stakeholders. Based on advice provided to the Competent Person by BKM, it is not expected that there will be any significant impediments to continuation and expansion of operations at the MGP.

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.	A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution of the Ore Reserve mine plan. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.
	The status of material legal agreements and marketing arrangements.	None known. A wholly owned subsidery of BLK owns the project, and intends to sell gold produced from the operation in line with the Market assessment.
	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.	The MGP is currently operational. The permitting process has not yet been commenced for the expansion works, however; based on the information provided by BKM, the Competent Person sees no reason all required approvals will not be successfully granted within a reasonable timeframe.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The results appropriately reflect the Competent Person's view of the deposit
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Measured Mineral Resource contributes to Probable Ore Reserves.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserves reporting processes has been subjected to an internal review by Entech's senior technical personnel in August 2017.
Discussion of relative accuracy/	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	The design, schedule, and financial model on which the Ore Reserve is based has been completed to a Pre-Feasibility Study standard as a minimum, with a corresponding level of confidence.

Criteria	JORC Code explanation	Commentary
confidence	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.	All modifying factors have been applied to designed mining shapes on a global scale.
	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.	Considerations in favour of a high confidence in the Ore Reserve include: • The mining process is well-known and utilises proven technology and methods widely used in the local area, with sufficient data to generate adequate costing estimates to pre-feasibility standard. • The treatment process has been successfully applied to the material over 20 years during historical operations. • The MGP is currently operational Considerations in favour of a lower confidence in the Ore Reserve include: • Future commodity price forecasts carry an inherent level of risk • There is a degree of uncertainty associated with geological estimates. The Ore Reserve classifications reflect the levels of geological confidence in the estimates. • There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study. Further, i.e. quantitative, analysis of risk is not warranted or considered appropriate at the current level of technical and financial study.
	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.	

Section 4B Estimation and Reporting of Golden Age Underground Ore Reserves

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.	The Mineral Resources used as the basis of this Ore Reserve update were released to market; 3 August 2017.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Mineral resources are reported inclusive of ore reserves.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person is currently employed at the Wiluna Gold mine and is familiar with the underground operations, the surrounding area and access routes and the Wiluna site infrastructure including the processing plant. The Competent person commutes to Wiluna Gold Mine on a FIFO basis.
	If no site visits have been undertaken indicate why this is the case.	The Competent Person works at Site.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	The Ore Reserve is based upon mining operational designs and planning standards.
	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.	Stope design factors are based upon technical parameters established by Mining Professionals and contained within Geotechnical and Mining Management Plans. Modelling indicates that the resulting mine plan is technically achievable and economically viable.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	Cut-off grades were determined based on a gold price of AU$1,600/oz. Treatment, mining and administration costs for cut-off grade estimation were sourced from monthly site cost reports and from current Mining Contract rates. Metallurgical recoveries were estimated by BKM based on metallurgical testwork data which compare closely to 2016/17 operating results. Royalty estimates are based upon current agreements.
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	Cut-off grades and geotechnical inputs were applied to the mineral resources to provide detailed underground mine designs. These designs which were economically viable were used as the basis of the Ore Reserve estimate.

Criteria	JORC Code explanation	Commentary
	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 Ore Reserve is planned to be a combination of top-down mechanised longhole open stoping method, with in-situ pillars left unmined for support, and airleg stoping in areas with a dip less than 35 degrees. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation, and diesel-electric longhole rigs used for production drilling. The mining methods chosen are well-known and widely used in the local mining industry, and production rates and costing can be predicted with a suitable degree of accuracy. The method has been chosen based on the spatial characteristics of the orebody, geotechnical analysis, and historical performance of similar methods used at the mine previously. Suitable access is available to all areas through existing declines. Dewatering and refurbishment of older development in the Golden Age Remnant area has been allowed for in the costing and schedules. Ore will be trucked to run-of-mine (ROM) pads on the surface, from where it will be hauled to the processing plant using private mine site roads by a separate road train contractor.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.	The site Ground Control Management Plan (GCMP) for the Golden Age orebody has been used as the basis of the geotechnical parameters in these reserves. The GCMP has been developed with in-house geotechnical engineering expertise and independent geotechnical consultants Peter O'Bryan and Associates. These form the basis of mining method selection, mine design, mining factors, and ground support design for the Ore Reserve estimate.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	The Mineral Resource models used for stope optimisation are as detailed in previously in this table. Only the Measured and Indicated portions of the Mineral Resource was used to estimate the Ore Reserve. Stope economics were determined using the cut-off grade revenue and cost inputs. A minimum stoping width of 1.8m was applied. Sub-level intervals of 8-15 m and stope section strike length of 5.0 m were also applied.
	The mining dilution factors used.	The majority of the remaining Golden Age orebody averages less than 1.3m true width. A minimum mining width of 1.8m for longhole stopes and airleg stopes has been applied for orebody true widths less than 1.3m. For ore widths greater than 1.5m, dilution skins of 0.3m and 0.2m have been applied to the hangingwall and footwall of the stopes respectively. In specific instances where geological structures are well understood, dilution has been applied based upon a structurally controlled mining shape.
	The mining recovery factors used.	A 95% mining recovery factor was applied to all stoping. Mining recovery was also reduced based on exclusion of 3.0m high, 3m wide island pillars, placed as required by the geotechnical analysis and to avoid down-dip

Criteria	JORC Code explanation	Commentary
		migration of local failures. Ore development had an assumed 100% mining recovery, based on historical experience and industry standards.
	Any minimum mining widths used.	A minimum mining width of 1.8 m was assumed for longhole stopes and airleg stopes.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Only the Measured and Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. Any Inferred material contained within the Ore Reserve design had grade set to waste for the purposes of optimisation and evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material.
	The infrastructure requirements of the selected mining methods.	All of the infrastructure required for the operations is already in place and operating at the Matilda site, including a processing plant and associated infrastructure, camp, airstrip, offices, workshops, power station and surface power reticulation, borefields and coreyards.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	The ore will be treated in the Wiluna processing plant, which is currently processing free-milling ore via a conventional crush-grind-gravity-separation-carbon in leach (CIL) circuit.
	Whether the metallurgical process is well-tested technology or novel in nature.	This circuit is operating successfully on this type of material currently.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	Enough recent processing plant production data exists to estimate metallurgical recoveries and throughput rates to a suitable degree of accuracy.
	Any assumptions or allowances made for deleterious elements.	No problematic levels of deleterious elements have been detected during test work or processing.
	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.	This circuit is operating successfully on this type of material currently.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	The final product is gold dore, therefore this is not applicable.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste	The MCP is currently fully permitted and operational.

Criteria	JORC Code explanation	Commentary
	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.	Historical data indicates that the rock mass is non-acid forming. There is adequate storage space within the currently permitted and operational TSF
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.	All necessary infrastructure exists on-site at the MGP, which has been operating for over a year following a three-year hiatus in care and maintenance. The site is located proximal to the township of Wiluna and the all-weather Goldfields Highway. The Wiluna airport services both the mine and the town The Golden Age mine has operational services provision systems installed and operational (water, compressed air, power and pumping). Labour is currently sourced from Perth on a fly in-fly out basis. Sufficient water will be available for operations from operational borefields.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Underground mining capital costs have been estimated based on a services contract, recent vendor quotes or estimates for refurbishment of capital infrastructure following inspection by independent experts, as collated during the 2016 DFS work.
	The methodology used to estimate operating costs.	Mining operating costs have been estimated based on a detailed underground mining services contract existing between Matilda Operations Pty Ltd and a mining contractor. Power, diesel and accommodation costs have been determined based on vendor quotes and operating data. Staff costs have been assumed based on current market salary levels. Plant operating costs are derived from the ore treated through the Wiluna processing plant, which is currently processing free-milling ore via a conventional crush-grind-gravity-separation-carbon in leach (CIL) circuit.
	Allowances made for the content of deleterious elements.	No allowance was made as no deleterious elements are expected, based on operational data and metallurgical testwork.
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	Single commodity pricing for gold only, using a long-term gold price of AU$1,600 per ounce per BKM corporate guidance. The Competent Person considers this to be an appropriate commodity price assumption based on the current environment.
	The source of exchange rates used in the study.	All costs and revenues have been estimated in Australian dollars. No exchange rate adjustments were required.
	Derivation of transportation charges.	All ore transportation charges are based on supplier quotes. This cost component has been used to determine the cut-off grades as well as applied to the operating cash flow estimate.
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet	Refining and product transport costs have been provided by BKM based on current agreements. No penalties will be applicable to the gold doré product.

Criteria	JORC Code explanation	Commentary
	specification, etc.	
	The allowances made for royalties payable, both Government and private.	A Western Australian State Government royalty of 2.5% has been applied. An additional 3.6% third party royalty has been applied based on advice from BKM.
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.	Forecasts for head grade delivered to the plant are based on detailed mine plans and mining factors. Revenue has been based on the commodity price and exchange data provided by BKM. Single commodity pricing for gold only, using a long-term gold price of A$1,600 per ounce, with a 2.5% WA State Government royalty and additional 3.6% third party royalty.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	The assumed gold price is per BKM Corporate Guidance.
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.	Gold doré from the mine is further refined at an independent LMBA certified refiner, and then then sold to the company's various gold sale counterparties
	A customer and competitor analysis along with the identification of likely market windows for the product.	NA
	Price and volume forecasts and the basis for these forecasts.	Gold doré from the mine is to be forecast to be sold at AUD1600/oz Au
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Not an industrial mineral so not applicable.
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.	The Ore Reserve estimate is based on a financial model for that has been prepared from inputs at an operational study level of accuracy. All inputs from mining operations, processing, transportation and sustaining capital as well as contingencies have been scheduled and evaluated to generate a full life of mine cost model. Economic inputs have been sourced from contractors, suppliers or generated from database information relating to the relevant area of discipline. A short-term economic hurdle of $400/oz has been set for these remaining reserves. The NPV of the project is positive at the assumed commodity price. The Competent Person is satisfied that the project economics based on mining the Ore Reserve retains a suitable margin of profitability against reasonably

Criteria	JORC Code explanation	Commentary
		foreseeable commodity price movements.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The project is still economically viable at unfavourable commodity price adjustments of 10%.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	The MGP is currently operational. BKM will continue to communicate and negotiate in good faith with key stakeholders. Based on advice provided to the Competent Person by BKM, it is not expected that there will be any significant impediments to continuation and expansion of operations at the MGP.
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.	A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution of the Ore Reserve mine plan. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.
	The status of material legal agreements and marketing arrangements.	None known. A wholly owned subsidiary of BLK owns the project, and intends to sell gold produced from the operation in line with the Market assessment.
	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.	The MGP is currently operational and mining of the Golden Age is fully permitted.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	The Proven Ore Reserve is based on that portion of the Measured Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss. The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss.
	Whether the result appropriately reflects the	The results appropriately reflect the Competent Person’s view of the deposit

Criteria	JORC Code explanation	Commentary
	Competent Person's view of the deposit.	
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Measured Mineral Resource contributes to Probable Ore Reserves.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserves reporting processes has been not been subjected to any internal review. A standard procedure of design and methodology checks and balances by senior operational staff is in place to ensure the viability of the reserves.
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 design, schedule, and financial model on which the Ore Reserve is based has been completed to a Pre-Feasibility Study standard as a minimum, with a corresponding level of confidence.
	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.	All modifying factors have been applied to designed mining shapes on a global scale.
	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.	Considerations in favour of a high confidence in the Ore Reserve include: • The mining process is well-known and utilises proven technology and methods widely used in the local area, with sufficient data to generate adequate costing estimates to a minimum of pre-feasibility standard. • The Golden Age orebody is currently operational • The treatment process is currently operational. • The MGP is currently operational Considerations in favour of a lower confidence in the Ore Reserve include: • Future commodity price forecasts carry an inherent level of risk

Criteria	JORC Code explanation	Commentary
		• There is a degree of uncertainty associated with geological estimates. The Ore Reserve classifications reflect the levels of geological confidence in the estimates. • There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study. Further, i.e. quantitative, analysis of risk is not warranted or considered appropriate at the current level of technical and financial study.
	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.	

Section 4C – Estimation and Reporting of Open Pit Ore Reserves

Criteria	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 is based on Mineral Resource market information for: ▪ Wiluna & Matilda released 3rd August 2017. • The stated Mineral Resource is inclusive of the Ore Reserve.
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.	• The Competent Person has visited site and conducted ongoing mine planning services since commencement of the Matilda open cut deposits. The Competent Person has also relied on reports from other independent consultants and site surveys in determining the viability of the Ore Reserve.
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	• A Pre-Feasibility level estimation of costs, modifying factors and parameters resulting in a mine plan that is technically achievable and economic using the determined Ore Reserve.

Criteria	Explanation	Commentary
	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.	
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• The cut-off grade applied is based on a gold price of AU$1,600/oz. • Open cut mining unit costs have been applied based on the current contractual rates with MACA for the Matilda, Galaxy and Williamson resource. • Open cut mining unit rates have been quoted from MACA for the Wiluna resource based on output from a previous scoping study. • Matilda resource treatment costs are based on current BKM budget operating costs. • Wiluna resource treatment costs are sourced from a processing PFS recently carried out by independent engineers Minnovo Pty Ltd. • Matilda metallurgical recoveries were provided by BKM based on current operational results for oxide and metallurgical test work for transitional and fresh resource as per the February 2016 DFS. • Wiluna metallurgical recoveries were estimated by BKM based on extensive historical sulphide plant operating data and historical metallurgical test work. • Other administration costs were based on existing operational data provided by BKM. • Royalty estimates were provided by BKM based on current agreements.
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.	• Whittle optimisations have been applied to the following Resource: ▪ For Matilda and Williamson there has been no change from February 2016 DFS. ▪ For Galaxy, optimisations were conducted on the BKM developed grade control resource. ▪ For Wiluna optimisations have included Inferred Resource. • The Ore Reserve has been reported within pit designs based on the Whittle optimisations. • Conventional open cut mining methods using 120t excavators and 90t trucks are employed in the existing operations at Matilda. Mining methods used are widely used in the mining industry and production rates

Criteria	Explanation	Commentary
	• 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.	and costings are based on existing contract rates. • Conventional open cut mining methods using 120t and 180 excavators with 90t and 150t trucks will be employed at Wiluna. Production rates and costings are based on quotes supplied by the existing mining contractor. • Geotechnical parameters are based on investigations by Peter O'Bryan and Associates. Parameters have allowed pit designs at Wiluna to be completed conforming to the recommendations. Probe drilling will be utilised for existing void detection. Ongoing reviews are conducted at the Matilda operations to maintain wall stability. • Mining dilution and ore loss factors applied include: ▪ 0% dilution and 5% ore loss for existing Matilda grade control resource models. ▪ 10 to 30% dilution and 5 to 10% ore loss based on reconciliation and dilution modelling on the Matilda resource used in the February 2016 DFS. ▪ 10% (oxide & trans), 15% (fresh) dilution and 5% ore loss on the Wiluna North resource developed by BKM. ▪ 0% dilution and 2 to 5% loss on the East West Lode resource developed by Cube Consulting. The resource model includes dilution. • The Mineral resource models used are as noted previously in this table. • The resource classifications consist of Measured, Indicated and Inferred. Only at the Wiluna resource has the Inferred resource been evaluated in the optimisations. The Ore Reserve does not include any Inferred resource and the Ore Reserve is technically and economically viable without the inclusion of the Inferred resource
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	• No deleterious elements of any note have been detected. • The Matilda, Galaxy and Williamson ore is currently being treated in the Wiluna processing plant, which is currently processing free-milling ore via a conventional crush-grind-gravity-separation-carbon in leach (CIL) circuit. • The installed BIOX® circuit (which is currently inactive) will be re-commissioned and expanded to treat the refractory sulphide ore generated by the Wiluna open cut Reserve. This will provide adequate recovery in the carbon-in-leach circuit. This circuit was operated successfully on this type of material for over 20 years

Criteria	Explanation	Commentary
	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?	during previous operations. • Enough recent processing plant production data exists to estimate metallurgical recoveries and throughput rates to a suitable degree of accuracy. • No problematic levels of deleterious elements have been detected during test work or processing. • The BIOX circuit was operated successfully on this type of material for over 20 years during previous operations.
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.	• The MGP is currently fully permitted and operational. • Historical data indicates that the rock mass is non-acid forming. • An operational tailings storage facility exists and plans for extra storage for the Wiluna expansion will be required. • Some land clearance will be required for waste dump and ROM pad construction during the Wiluna Expansion works. • The permitting process for these outstanding items has not commenced, however the Competent Person knows of no reason why permitting would not be granted within a reasonable time frame.
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.	• Substantial infrastructure exists on-site at the MGP, which has been operating for over a year following a three-year hiatus in care and maintenance. • Open cut infrastructure is currently in place and operational at Matilda and Galaxy. • The site is located proximal to the township of Wiluna and the all-weather Goldfields Highway. The Wiluna airport services both the mine and the town • Labour is currently sourced from Perth on a fly in-fly out basis. • Sufficient water will be available for operations from operational borefields.

Criteria	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.	• Mine operating costs are based on : ▪ Existing contract rates for Matilda, Galaxy and Williamson covering haulage distances and monthly total movement, drill and blast targets and overheads with contractor MACA. ▪ Estimated unit rates based on results of scoping studies for Wiluna resource by MACA. • Mine administration and ancillary costs have been based on current market levels and provided by BKM. • All costs and revenue are in AUD. • Processing operating costs were determined based on: ▪ Existing operating costs at Wiluna mill. ▪ A PFS carried out by independent engineers Minnovo Pty Ltd for the treatment of sulphide ore. • Royalties for a 2.5% WA State Government royalty and additional 3.6% third party royalty the gold produced.
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.	• Single commodity pricing for gold only, using a long-term gold price of AU$1,600 per ounce as per BKM corporate guidance. • The Competent Person considers this to be an appropriate commodity price assumption based on the current environment.
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	• Gold doré from the mine is further refined at an independent LMBA certified refiner, and then then sold to the company's various gold sale counterparties. • The gold price of AU$1,600/oz is as per BKM guidance.

Criteria	Explanation	Commentary
	forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	
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.	• The Ore Reserve estimate is supported by a financial model that has been prepared from current operating inputs at Matilda with inputs to a Pre-Feasibility level at Wiluna. The model covers the current 9 year life of the Project. • All major cost inputs have been sourced from contractors and suppliers. • A discount rate of 8% has been applied. • The NPV is positive and sensitivity analysis has been completed for the commodity price, operating costs and Capital costs. The project is still economically viable with a reduction in gold price of 10%.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The MGP is currently operational and it is not expected that there will be any impediments for the Wiluna Expansion to proceed.
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	• A risk control process will be undertaken prior to implementation of the Wiluna Expansion and it is assumed that there will an adequate process for control and mitigation. • The MGP is currently operational. The permitting process has not yet been commenced for the expansion works, however; based on the information provided by BKM, the Competent Person sees no reason all required approvals will not be successfully granted within a reasonable timeframe.

Criteria	Explanation	Commentary
	party on which extraction of the reserve is contingent.	
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).	• Classification of the Ore Reserve is based on the Mineral Resource classification. • The Matilda and Galaxy grade control Measured Resource has been converted to a Proven Reserve. • At other Matilda deposits the Measured Resource has been converted to a Proven Reserve and Indicated Resource to a Probable Reserve. • The Wiluna Indicated Resource has been converted to a Probable Reserve. • The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• The Ore Reserve estimate has been reviewed internally by BKM and is considered to appropriately reflect the results of the application of the modifying factors to the Mineral Resources to a Pre-Feasibility Study level.
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	• The design, schedule and financial model for the Matilda and Galaxy Ore Reserve has been completed to a Definite Feasibility standard with a corresponding level of confidence. • The design, schedule and financial model for the Wiluna Ore Reserve has been completed to a Pre-Feasibility standard with a corresponding level of confidence. • A degree of uncertainty is associated with geological estimates and the Reserve classification reflects the level of confidence in the Resource. • There is a degree of uncertainty regarding estimates of modifying mining factors, geotechnical and processing parameters that are of a confidence level reflected in the level of the study. The Competent Person is satisfied that a suitable margin exists that the Reserve estimate would remain economically viable with any negative impacts applied to these factors or parameters. • There is a degree of uncertainty in the commodity price used however the Competent person is satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data.

Criteria	Explanation	Commentary
	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.	