

# **Ore Reserve Update for Pearse Open Pits**

Kingston delivers the first component of the LOM plan to recommence hard rock mining at Mineral Hill

# Highlights

- An updated Ore Reserve for Pearse North and Pearse South open pits is now estimated at 260kt @ 3.7 g/t Au and 57 g/t Ag for 31,000 oz of gold and 470,000 oz of silver.
- Financial modelling shows both pits generating significant cash flow for Mineral Hill.
- Both pits are fully permitted with all management plans and environmental approvals in place.
- The updated Ore Reserve is based on a revised Mineral Resource Estimate, with the new drilling data collected in 2022.
- Pearse South historically produced 219kt at 6.06g/t Au and 64g/t Ag for 42,630oz Au and 447,907oz Ag.
- Comprehensive geotechnical studies, underground mining evaluations and metallurgical test work is in the final stages of compilation to support the release of Mineral Hill's full Life of Mine (LOM) plan for hard rock mining.

Kingston Resources Limited (ASX:**KSN**) ("Kingston', or '**The Company'**) is pleased to announce an updated JORC 2012 Ore Reserve Estimate for the Pearse North and Pearse South opens pits of 260kt @ 3.7 g/t Au and 57 g/t Ag for 31,000 oz of gold and 470,000 oz of silver. This is supported by a revised Mineral Resource Estimate (MRE) for both deposits on the back of 2022 resource drilling.

This release marks a significant milestone for Kingston, as the pits comprise the initial stage of Mineral Hill's return to hard rock mining. LOM production tonnes are comprised nearly entirely of Ore Reserves out to the end of CY24 (TSF Project plus open pit mining). The underground component of the LOM plan is expected to contain a significant proportion of Measured and Indicated Resources from the Southern Ore Zone (SOZ) MRE (see ASX announcement on 11 November 2022).

Work is also underway on finalising a revised MRE for Jack's Hut, which will provide added optionality for Mineral Hill. The full LOM schedule, due to be released this month, will be supported by extensive technical studies in terms of geotechnical engineering, metallurgy and mining evaluations.

Kingston Resources Managing Director, Andrew Corbett, comments:

"We are very proud to report the updated Ore Reserve for Pearse. The high-grade mineralisation within the Pearse open pits acts as a springboard to successfully get Mineral Hill back into conventional mining. The modelled revenue makes a significant positive impact on Kingston's cash flow projections. We see this as just the first step in our transition back to hard rock mining at Mineral Hill and in delivering value from this outstanding tenement package."



ASX: KSN Shares on Issue: 416M Market Cap: A\$34M Cash: A\$6.84M (31 Dec 2022) 202/201 Miller Street, North Sydney, NSW 2060 +61 2 8021 7492 info@kingstonresources.com.au www.kingstonresources.com.au



#### **Mineral Resource Estimate**

The Pearse North and South deposits at Mineral Hill are interpreted to be epithermal shear-hosted gold-silver (Au-Ag) lodes within the Late Silurian to Early Devonian Mineral Hill Volcanics. The sulphide mineralisation, comprising predominantly pyrite, arsenopyrite and stibnite, is typically disseminated within quartz-mica (sericite) schist.

The mineralisation geometry was interpreted by creating 3D geological domain models using a 0.3g/t Au lower cut off for Pearse South and 0.2g/t Au for Pearse North. These cut-offs are based on the natural breaks observed in mineralisation populations. Grade estimation was subsequently undertaken using ordinary kriging estimate methodology into a 3-D block model.

The classification of the MRE into confidence categories has been completed based on distance to samples and the average slope of regression. Indicated portions have a distance to the nearest sample of less than 25m and a slope of regression > 0.7, while Inferred portions have an average distance to samples > 30m and slope of regression < 0.6. The adopted reporting cut-off grade of 1.0g/t Au is based on the results of Whittle optimisation shells using cost and recovery data sourced from the operation at Mineral Hill. The individual MREs for the two deposits are shown Table 1 and Table 2.

Classification	Tonnes kt	Grade Au g/t	Grade Ag g/t	Metal Au koz	Metal Ag koz
Indicated	224	3.0	25.0	22	180
Inferred	15	2.5	20.5	1	10
Total	239	3.0	24.7	23	190

#### Table 1 Pearse North Mineral Resource Estimate at 1.0g/t Au Cut Off

Inferred	15	25	20.5	1	10
Total	239	3.0	24.7	23	190
	Table 2 Pearse South N	lineral Resource Est	imate at 1.0g/t Au (	Cut Off	
Classification	Tonnes kt	Grade Au g/t	Grade Ag g/t	Metal Au koz	Metal Ag koz
Indicated	164	4.1	85.3	22	451
Inferred	40	2.4	5.0	3	6
Total	204	3.8	69.0	25	457

The mineralisation model for each deposit has been revised using all available historical data and drill hole data acquired by Kingston in 2022. Drilling methods in the dataset comprise reverse circulation and diamond drilling methods. Reverse Circulation (RC) drilling samples were collected at 1m intervals directly from the rig cyclone (with a cone splitter attached). The diamond core was cut and sampled, with sample lengths ranging from 0.3m to 1.0m.

Samples were analysed at SGS laboratory using Multi element 4-acid digest and gold by Fire Assay technique with an Atomic Absorption Spectrometry (AAS) instrument finish. KSN utilised QAQC in the form of standards, blanks and duplicates to ensure all data was of suitable quality for inclusion in the estimate. No specific metallurgical assumptions were made in the preparation of this MRE.

Information relating to the MRE and the Ore Reserve estimate is consistent with ASX Listing Rule 5.8.1 & 5.9.1 requirements. Further details are provided in JORC Table 1, which is included as Appendix A.

### **Ore Reserve Estimate**

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

A 'Probable Ore Reserve' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.

Table 3 details the Probable Ore Reserve estimate for Pearse South and Pearse North.

Pit	kt	Au g/t	Ag g/t	Au koz	Ag koz
Pearse South					
Oxide	0	0.0	0	0	0
Transition / Fresh	140	4.0	84	18	375
Subtotal	140	4.0	84	18	375
Pearse North					
Oxide	10	2.4	5	1	1
Transition / Fresh	110	3.4	26	12	94
Subtotal	120	3.4	25	13	95
Total					
Oxide	10	2.4	5	1	1
Transition / Fresh	250	3.8	58	30	468
Total	260	3.7	57	31	470

Table 3: Pearse South and Pearse North Probable Ore Reserve, March 2023.

1. Due to rounding to appropriate significant figures, minor discrepancies may occur, tonnages are dry metric tonnes.

2. Probable Ore Reserves are derived from Indicated Mineral Resources.

3. The Ore Reserves do not include, or depend upon, Inferred Mineral Resources.

4. The Ore Reserves form part of the Mineral Resources.

# Mining Methods

Mining will be undertaken with conventional opencut methods using hydraulic excavators and mining trucks. All material mined will require blasting. Pearse South pit will be a pushback and deepening of the existing pit and Pearse North will be a new pit. Both are fully permitted and have all management plans and environmental approvals in place. Ore loss and dilution was handled by regularising the blocks in the block model to 2.5m x 2.5 x 2.5, which resulted in an approximate dilution of 20% and ore loss of 5%. Ore from Pearse pits will be recovered from a floatation concentrate and CIL treatment of the floatation tail.

Other material assumptions include:

- Mining cut-offs are derived from a net value per tonne basis, corresponding to an approximate gold cut-off grade of 0.93g/t for Pearse South and 1.37g/t for Pearse North. Pearse North is higher due to a lower average silver grade.
- Metal pricing of US\$1800/oz for gold, US\$24/oz for silver and exchange rate (AUD/USD) of 0.70.
- Unit mining costs for ore and waste are based on current Mineral Hill operating costs and similar projects currently operating in in NSW.
- Site fixed costs are based on actual costs since the mine is currently processing tailings.



### **Processing Methods**

The Ore Reserve has been estimated based on using the existing processing facilities at Mineral Hill. Processing of the open pit ore will commence upon refurbishment of the processing plant. Key assumptions on processing include:

- Gold is recovered via flotation and CIL processing. Estimated recovery is based on historical production records and recent metallurgical testwork.
- The gold concentrate grade is forecast to be >30g/t Au.
- Concentrate contaminant grades are expected to average 1.9% Arsenic and 1.4% Antimony. It is assumed that these grades would not incur penalties.



Figure 1: Plan view of Pearse North and South with geological models and pit designs.

This updated Ore Reserve marks a significant milestone for Kingston, as the open pits are expected to generate significant cash flow for the company. The average Reserve grade of 3.7g/t gold is significantly higher than the current tailings resource grade of 1.1g/t Au, meaning a significant step up in metal output and revenue when open pit mining commences. There is also potential to discover additional high grade, near-surface gold/silver mineralisation within the mining and exploration leases to complement the existing plant feed.

Mineral Hill's operating process plant as well as the existing permitting and approvals are a major asset for Kingston; incremental mineralisation discovered or acquired has an accelerated path to value realisation.





Figure 2: Oblique cross section of the Pearse South MRE block model and pit design.



Figure 3 Pearse North cross section looking north (mine grid).



This release has been authorised by the Kingston Resources Limited Board. For all enquiries please contact Managing Director, Andrew Corbett, on +61 2 8021 7492.

#### About Kingston Resources

Kingston Resources is a gold producer, focused on building a mid-tier gold and base metals company, with current production from the Mineral Hill gold and copper mine in NSW, and advancing its development asset, the 3.8Moz Misima Gold Project in PNG.

Mineral Hill is a gold and copper mine located in the Cobar Basin of NSW. Alongside current production, exploration is focusing on near mine production opportunities from both open pit and underground targets located on the existing MLs. The aim will be to expand and update the existing Resource base to underpin mine feasibility work and approvals to ensure an immediate transition to open pit and/or underground feed at the completion of the tailings reprocessing.

Misima hosts a JORC Resource of 3.8Moz Au and an Ore Reserve of 1.73Moz. Misima was operated as a profitable open pit mine by Placer Pacific between 1989 and 2001, producing over 3.7Moz before it was closed when the gold price was below US\$300/oz. The Misima Project also offers outstanding potential for additional resource growth through exploration success targeting extensions and additions to the current Resource base. Kingston's interest in Misima is held through its PNG subsidiary Gallipoli Exploration (PNG) Limited.

The Misima Mineral Resource and Ore Reserve estimate outlined below was released in ASX announcements on 24 November 2020, 15 September 2021 and 6 June 2022. Further information is included within the original announcements.

#### Misima JORC 2012 Mineral Resource & Ore Reserve summary table

Resource	Cut-off (g/t Au)	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Au (Moz)	Ag (Moz)
Indicated	0.3	97.7	0.79	4.3	2.5	13.4
Inferred	0.3	71.3	0.59	3.8	1.4	8.7
Total	0.3	169	0.71	4.1	3.8	22.1
Reserve	Cut-off (g/t Au)	Tonnes (Mt)	Au (g/t)	Ag (g/t)	Au (Moz)	Ag (Moz)
Probable	0.3	75.6	0.79	4.2	1.73	4.1

#### Mineral Hill JORC 2012 & JORC 2004 Mineral Resource & Ore Reserve summary table

Deseures	Tonnes	Au	Ag	Cu	Pb	Zn	Au	Ag	Cu	Pb	Zn
Resource	(kt)	(g/t)	(g/t)	%	%	%	(koz)	(koz)	(kt)	(kt)	(kt)
Measured	228	2.11	11	1.3%	0.5%	0.3%	15	80	3	1.2	0.7
Indicated	4,974	1.01	31	1.1%	2.0%	1.2%	161	4,110	39	67	40
Inferred	2,059	1.21	20	0.7%	1.6%	1.5%	80	1,325	15	31	30
Total	7,261	1.10	28	1.0%	1.8%	1.3%	257	5,515	57	100	71
Basarus	Tonnes	Au	Ag	Cu	Pb	Zn	Au	Ag	Cu	Pb	Zn
Reserve	(kt)	(g/t)	(g/t)	%	%	%	(koz)	(koz)	(kt)	(kt)	(kt)
Probable	1,431	1.55	57				71	470			
Total	1,431	1.55	57				71	470			

#### **Competent Persons Statement and Disclaimer**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr. Stuart Hayward BAppSc (Geology) MAIG, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr. Hayward is an employee of the Company. Mr. Hayward has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Hayward confirms that the information in the market announcement provided is an accurate representation of the available data and studies for the material mining project and consents to the inclusion in this report of the matters based upon the information in the form and context in which it appears.

The Competent Person signing off on the overall Misima Ore Reserves Estimate and the Pearse North & South Ore Reserve Estimates is Mr John Wyche BE (Min Hon), of Australian Mine Design and Development Pty Ltd, who is a Fellow of the Australasian Institute of Mining and Metallurgy and who has sufficient relevant experience in operations and consulting for open pit metalliferous mines. Mr Wyche consents to the inclusion in this report of the matters based upon the information in the form and context in which it appears.

Kingston confirms that it is not aware of any new information or data that materially affects the information included in all ASX announcements referenced in this release, and that all material assumptions and technical parameters underpinning the estimates in these announcements continue to apply and have not materially changed.





Pearse Opencut Gold

Mineral Hill Mine New South Wales, Australia

As at 3 March 2023

Prepared by Australian Mine Design and Development Pty Ltd

for

Kingston Resources Limited

Authors: John Wyche – Australian Mine Design and Development Pty Ltd Stuart Hayward – Kingston Resources Limited

Effective Date: 8 March 2023 Submitted Date: 8 March 2023





# **1 EXECUTIVE SUMMARY**

Mineral Resource and Ore Reserve estimates have been completed by Kingston Resources for Pearse North and Pearse South gold deposits at Mineral Hill in accordance with the JORC Code 2012 and are current as of 03 March 2023.

A maiden Ore Reserve Estimate Pearse Deposits post historical mining is (Table 6)

### 260Kt @ 3.7g/t Au, 57g/t Ag for 31Koz Gold and 470Koz silver

Pearse South Ore Reserves have been estimated as:

140Kt @ 4.0g/t Au, 84g/t Ag for 18Koz Gold and 375Koz silver

Pearse South Ore Reserves have been derived from the Pearse South Mineral Resource estimate of 221kt @ 3.7g/t Au & 64.4g/t Ag for 26koz Au and 458koz Ag. 80% of Pearse South Resource is classified as Indicated (Table 1).

Pearse North Ore Reserves have been estimated as:

120Kt @ 3.4g/t Au, 25g/t Ag for 13Koz Gold and 95Koz silver

Pearse North Ore Reserves have been derived from the Pearse North Mineral Resource estimate of 239kt @ 3.0g/t Au & 24.7g/t Ag for 23koz Au and 190koz Ag. 93% of Pearse North Resource is classified as Indicated (Table 2).

The Ore Reserve estimates and geology models for Pearse South and Pearse North will provide input to the Mineral Hill Life of Mine Plan (LoMP).

### **1.1** Accord with JORC Code

This Mineral Resource and Ore Reserves Estimates have been prepared in accordance with the guidelines of the Australasian Code for the Reporting of Resources and Reserves 2012 Edition (the JORC Code 2012).

The Competent Person signing off on the Mineral Resources Estimate is Mr Stuart Hayward BAppSc (Geology), of Kingston Resources, who is a member of the Australian Institute of Geoscientists and who has 36 years of relevant experience in mineral exploration, advanced projects, mining operations, geoscience consulting, and epithermal and polymetallic mineral systems, and epithermal Au and porphyry Cu-Au mineral deposits.

The Competent Person signing off on the overall Ore Reserves Estimate is Mr John Wyche, of Australian Mine Design and Development Pty Ltd, who is a Fellow of the Australasian Institute of Mining and Metallurgy and who has 33 years of relevant experience in operations and consulting for open pit Precious and base metals mines.





# 2 MINERAL RESOURCE SUMMARY

The Mineral Resource Estimate for Pearse North and Pearse South are summarised in Table 1, and Table 2

#### Table 4 Pearse North Mineral Resource Estimate at 1.0g/t Au Cut Off

Classification	Tonnes Kt	Grade Au g/t	Grade Ag g/t	Grade Sb %	Grade As %	Grade S %	Metal Au Koz	Metal Ag Koz	Metal Sb t
Indicated	224	3.0	25.0	0.08	0.28	0.81	22	180	180
Inferred	15	2.5	20.5	0.09	0.22	1.09	1	10	13
P.NTH Total	239	3.0	24.7	0.08	0.27	0.83	23	190	193

Notes:

- 1. JORC Code 2012 definitions are used for the Mineral Resources.
- 2. Rounding may cause apparent computational errors.
- 3. Reported at USD1,800/oz gold price.
- 4. Cut-off grades are based on historical mining performance and mining optimisation studies.
- 5. Pit shells derived based on mining parameters determined by historical mining of Pearse South and applied as Base Case parameters.

Classification	Tonnes Kt	Grade Au g/t	Grade Ag g/t	Grade Sb %	Grade As %	Grade S %	Metal Au Koz	Metal Ag Koz	Metal Sb t
Indicated	164	4.1	85.3	0.25	0.28	1.57	22	451	409
Inferred	40	2.4	5.0	0.10	0.30	1.71	3	6	5
Total	204	3.8	69.0	0.20	0.28	1.60	25	457	415

### Table 5 Pearse South Mineral Resource Estimate at 1.0g/t Au Cut Off

Notes:

6. JORC Code 2012 definitions are used for the Mineral Resources.

7. Rounding may cause apparent computational errors.

8. Reported at USD1,800/oz gold price.

9. Cut-off grades are based on historical mining performance and mining optimisation studies.

10. Pit shells derived based on mining parameters determined from physical performance of the existing pit and historical mining of Pearse South and applied as Base Case parameters.





# **3** ORE RESERVES SUMMARY

# 3.1 Scope

The March 2023 Ore Reserves Estimate was prepared for Kingston Resources Limited (KSN) by Australian Mine Design and Development Pty Ltd (AMDAD). It deals with the Mineral Resource for the Pearse gold / silver deposit at the Mineral Hill Mine in New South Wales as at 3<sup>rd</sup> March, 2023.

The Ore Reserves are based on extraction by open pit mining from two adjacent pits. The Pearse South Pit will be a pushback of an existing pit. The Pearse North Pit will be a new development.

The Ore Reserves are based on Mineral Resource estimates for Pearse North and Pearse South completed for Kingston by Cube Consulting Perth and are current as at 3<sup>rd</sup> March 2023. Table 6 Pearse Opencut Ore Reserves

Pit	kt	Au g/t	Ag g/t	Au oz	Ag oz
Pearse South					
Probable Ore					
Oxide	0	0.0	0	0	0
Transition / Fresh	140	4.0	84	18	375
Subtotal	140	4.0	84	18	375
Waste	1,660				
Waste:Ore Ratio	12.0				
Pearse North					
Probable Ore					
Oxide	10	2.4	5	1	1
Transition / Fresh	110	3.4	26	12	94
Subtotal	120	3.4	25	13	95
Waste	1,010				
Waste:Ore Ratio	8.4				
Total					
Probable Ore					
Oxide	10	2.4	5	1	1
Transition / Fresh	250	3.8	58	30	468
Total	260	3.7	57	31	470
Waste	2,670				
Waste:Ore Ratio	10.4				

Notes:

1. The tonnes and grades shown in the totals rows are stated to a number of significant figures reflecting the confidence of the estimate. The table may nevertheless show apparent inconsistencies between the sum of components and the corresponding rounded totals.

2. There are no Proved Ore Reserves.

3. Probable Ore Reserves are derived from Indicated Mineral Resources.

4. The Ore Reserves do not include, or depend upon, Inferred Mineral Resources.

5. The Ore Reserves form part of the Mineral Resources.





# 3.2 Contributing Persons

The March 2023 Ore Reserve Statement prepared by AMDAD and KSN was supported by contributions from the persons listed in Table 4.





# **5 PROJECT DESCRIPTION**

# 5.1 Location

The Mineral Hill Project is located in New South Wales of Australia, 60 km north of Condobolin. Pearse North and Pearse South deposits sit within several small mining leases (Figure 4, Figure 5).



Figure 4 Mineral Hill Project Location Map





# 5.2 Geology

The Mineral Hill Cu-Pb-Zn-Ag-Au mine in central NSW (Figure 1) consists of a series of mineralised faults/shears extending over a combined strike length of +2km. Deposits are hosted by late Silurian Mineral Hill Volcanics (MHV) overlain by early Devonian Talingaboolba Formation comprising lithic sandstone, siltstone and conglomerate.

Mineralisation post-dates the principal dates of the proximal volcanics with deposits demonstrating distinct metal zonation and structural control. The genetic model(s) is yet to be completely understood with the juxtaposition of epithermal and mesothermal mineralisation styles likely resultant from extensive post-mineralisation faulting. Faults and structures have acted as pathways for mineralising fluids, provided a mechanism to localise mineralisation at the deposit-scale and in most cases the faults host mineralisation.

Mineralisation occurs as four main styles- Vein/Lode, Breccia/Vein Network, Skarn hosted, and disseminated shear hosted Au-Ag. The mineral system contains precious and base metal mineralisation is classified as Elevated Sulphide (Au-Ag-As-Sb), Epithermal Au, Polymetallic Cu-Pb-Zn-Ag-Au, Sulphide Cu-Au (-Bi), and Skarn Cu-Pb-Zn-Ag-Au (Mt) (after Corbett 2002) with some deposits displaying overprinting mineralisation styles. Broad geochemical and metal zonation's are evident within mineralised structures.

The Pearse North and South deposits at Mineral Hill are interpreted to be an epithermal shearhosted Au-Ag within the Late Silurian to Early Devonian Mineral Hill Volcanics, a pile of proximal rhyolitic volcaniclastic rocks with minor reworked volcaniclastic sedimentary rocks. The sulphide mineralisation, comprising predominantly pyrite, arsenopyrite and stibnite, is typically disseminated within quartz-mica (sericite) schist. At the Pearse deposit to the south, analysis by Laser Ablation ICP-MS has found that fine-grained gold is mostly concentrated in arsenopyrite and fine-grained 'spongy' (melnikovite) pyrite with lower concentrations of gold hosted by crystalline pyrite.

# 5.3 Mineral Resource Estimation

Mineral Resource estimation has been completed for each deposit separately. Specific details of the modelling parameters and modelling approach for Pearse South and Pearse North as details of supporting data and mining assumptions are referenced in the attached deposit specific JORC 2012 Table 1.

The geology and mineralisation model for each deposit has been revised and rebuilt using all available historical and new data sets.

3D geological domain models and grade estimation for both deposits has been completed by an Independent Consultant Resource Geologist, Mr. Marcus Osiejak, of Cube Consulting Perth.

Geology, structure, and validated data inputs to the resource estimation are managed and provided by Kingston with geological and mineral system context provided through direct consultation between Mr. Darin Rowley and Mr. Stuart Hayward (MAIG, CP (JORC 2012)). Additional peer review of geology inputs is provided by Mr. Geoff Merrell General Manager Mineral Hill who was an on ground member of the operations team during previous mining at Pearse South.



# 5.4 SUMMARY OF MINE PLAN

KSN is in the process of re-commencing mining and processing operations at Mineral Hill. Reclaimed tailings are currently being treated to produce gold / silver dore. Mining is planned to commence in the Pearse South and North opencuts during the second half of 2023 with processing of the sulphide ore to commence in early 2024. It is expected that the Pearse pits will be depleted during the second half of 2024. By that time it is planned re-commence base metals production from underground mining, initially in the SOZ orebodies.

# 5.5 PROJECT OWNERSHIP

The Mineral Hill Mine was owned by Triako Resources Limited from 1989 to 2005. It was operated by Triako from 1995.

The project was acquired by KBL Mining in 2006. KBL identified gold / silver mineralisation at Pearse South in 2009. The processing plant was re-furbished in late 2010. Between June 2011 and August 2015, KBL mined underground from areas including the Parker's Hill NE, Red Terror and SOZ orebodies. In late 2015, underground mining was suspended and treatment of the recently commissioned Pearse open pit mine commenced. In 2015-16, a Carbon-in-Leach (CIL) circuit was added to the back end of the flotation circuit for additional recovery of gold and silver from the Pearse South pit. Mining of Pearse South pit continued until August 2016 when the overall operation was placed on care and maintenance.

KSN acquired 100% of the Mineral Hill Project in January 2022. The CIL circuit was refurbished and is currently being used to treat reclaimed tailings to produce gold / silver dore. The flotation circuit is currently being re-furbished to treat Pearse sulphide gold ore from early 2024 and then underground base metals sulphide ore.

# 5.6 TENURE

The Mineral Hill operation comprises 20 granted Mining Leases (Figure 5,

Table 7) that have all the required approvals in place to immediately undertake the project as described. All ML areas are held in good stead.







#### Figure 5 Mineral Hill Mining Leases

#### Table 7 Mineral Hill Mining Leases

Mining Lease	Area (ha)	Grant Date	Expiry
ML 332	22	15-Dec-1976	14-Mar-1933
ML 333	28	15-Dec-1976	14-Mar-1933
ML 334	21	15-Dec-1976	14-Mar-1933
ML 335	25	15-Dec-1976	14-Mar-1933
ML 336	23	15-Dec-1976	14-Mar-1933
ML 337	32	15-Dec-1976	14-Mar-1933
ML 338	26	15-Dec-1976	14-Mar-1933
ML 339	25	15-Dec-1976	14-Mar-1933
ML 340	26	15-Dec-1976	14-Mar-1933
ML 1695	9	7-May-2014	7-May-1935
ML 1712	24	28-May-2015	28-May-1936
ML 1778	29	7-Dec-2018	28-May-1936
ML 5240	32	14-Mar-1951	14-Mar-1933
ML 5267	32	22-Jun-1951	14-Mar-1933
ML 5278	32	13-Aug-1951	14-Mar-1933
ML 5499	32	18-Nov-1955	14-Mar-1933
ML 5621	32	12-Mar-1958	14-Mar-1933
ML 5632	27	25-Jul-1958	14-Mar-1933
ML 6329	8	18-May-1972	14-Mar-1933
ML 6365	2	20-Dec-1972	14-Mar-1933





# 5.7 APPROVALS

### Mining

The operation has officers qualified to, and fulfilling all the statutory requirements for, named roles under relevant mine safety legislation such as Quarry Manager, Statutory Electrical Engineer and Mine Engineering Manager.

Approvals under the NSW Mining Act are in place for:

- Underground mining of EOZ, SOZ, Jacks Hut, Ashes, Parkers Hill and Iodide deposits
- Open Pit Mining of the 5001 and EOZ pits
- Placement of waste material in the Mineral Hill Waste Dump, the 5001 waste dump and the placement of tailings in TSF1
- Processing of ore material using both flotation and cyanide leaching for the production of metal concentrates and precious metal doré
- Use of water management structures such as the Raw Water Dam, Process Water dam and the historic "Creek A" diversion
- Construction and use of ancillary structures such as site offices, workshops, soil stockpiles, core yards and haul road network
- Transportation of metal concentrates from the site via the public road network

### **Development Consent**

More recent site improvements and activities have been covered under Development Consents

- DA 2000/36. Construction and operation of two evaporation ponds
- DA 2011/18.
  - Extraction of waste rock and ore from the Pearse Deposit via open cut mining methods including associated haul roads
  - o Construction of the Pearse Waste Rock Emplacement
  - Construction of Tails Storage Facility 2
- DA 2011/18 Mod 1
  - Extraction of waste rock and ore from the Pearse North Deposit via open pit methods with associated haul road infrastructure
- DA 2011/18 Mod 2
  - Removal and retreatment of the contents of TSF1 for the recovery of precious metal doré via cyanide in leach process
- DA 2011/18 Mod 3
  - Clarification and codification of the biodiversity offset in place to allow for the clearing of the Pearse Pits, TSF2 footprint and associated hauls roads as described in DA 2011/18

### **High Risk Activity Notification**

In line with Work Health and Safety (Mines and Petroleum Sites) Regulation 2022, mine sites are required to notify the Resources Regulator before the commencement of any High Risk Activities as defined in Schedule 3.

- Mineral Hill has HRA notifications and management plans in place for deconstruction of TSF1 and ongoing construction of TSF2
- Addition HRA notification will be made before recommencement of open pit or underground mining activities





# Safety Management System

Mineral Hill has constructed and implemented an externally audited Safety Management System in line with the requirements as set out in the following instruments:

Works Health and Safety Act 2011

- Work Health and Safety Regulation 2017
- Work Heath and Safety (Mines and Petroleum Sites) Regulation 2022
- Dam Safety Regulation 2019

# 5.8 ENVIRONMENTAL AND SOCIAL

The site has an EPA license, EPL3151 that covers all current and proposed activities, methods and reagents.

- EPL 3151 specifically allows for the processing of 700kt pa, almost double the scope of the current works
- There is an ongoing environmental monitoring program to ensure the site complies with all conditions laid out in the license

There is a bore license in place for the dewatering of the underground workings that covers all site water requirements up to 630ML pa (80BL242753) with current extraction in the order of 230ML pa.

The site has a Rehabilitation Management Plan and the associated rehabilitation bond in place to cover all currently approved mining and processing activities.







Figure 6 Pearse Reserve Pits over Satellite Imagery.









Figure 8 Pearse North Pit Cross Section – Reserve block model coloured by gold g/t over Reserve pit shell.





#### **Table 4 Contributing Experts**

Expert Person/Company	Area of Expertise	References / Information Supplied
Martin Recklies	Geology and Mineral Resource estimation	Geological data validation and supply; Geological interpretation and spatial data inputs to Mineral Resource estimation
Marcus Osiejak, Cube Consulting	Mineral resource estimation	Pearce South MRE Technical Memo, 15 <sup>th</sup> June 2022 Pearce North MRE Technical Memo, 3 <sup>rd</sup> August 2022
Guy Butcher, G Butcher Consulting	Metallurgy	Review of historical process records for Pearse South ore. Assessment of test work on Pearse North samples.
Geoff Merrell, Kingston Resources	General Manager, Mineral Hill Mine	Current Mining Lease, approvals and environmental compliance. Recent mine and process operating history.
Stuart Hayward	Chief Geologist KSN/Mineral Hill	Competent Person (JORC 2012) Mineral Resources
Andrew White, Kingston Resources	Commercial Manager	Mineral Hill financial model.
John Wyche, AMDAD Pty Ltd	Mining Engineering	Pit optimisation. Opencut mine design. Detailed production scheduling. Competent Person for Ore Reserves.





# **ORE Reserve Assessment**

Table 5 JORC Code 2012, Table 1

Sections 1, 2 and 3 of the following Table 1 are taken from the Mineral Resource Estimate reports "*Technical Note - Kingston Pearce South MRE July\_2022\_2020805*" by Marcus Osiejak of Cube Consulting.

# JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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</li> </ul>	<ul> <li>RC- A RC specific or multipurpose drill rig was used to produce broken rock chip samples of the rock mass for logging and sampling. Sample lengths were generally 1m down hole with no subsampling.</li> <li>DDH- A diamond core drill rig was used to produce rock samples of core. Run length was variable between 3m and 1m depending on the ground conditions and any expected mineralization.</li> <li>Triple Tube PQ and HQ barrel set up was utilized to maximize recoveries. PQ was used in weathered zone, typically approximately the first 30m followed by HQ3.</li> <li>Mineralization is typically determined by the presence of sulphides, namely pyrite, and alteration mineralogy. This is a visual assessment and at times verified by pXRF analysis.</li> <li>Diamond drill core is orientated where orientation tools provided an outcome that is assessed as reliable.</li> <li>The geologist selects sample intervals based on logged lithology, alteration, mineralisation and structures with a minimum sample length of 0.3m and a maximum of 1.0m. Drill core is sampled only within potentially mineralised zones and extending up to 10m outside of mineralised zones as determined by visual and/or pXRF analysis.</li> <li>All drill core is sampled using an automated/mechanical core cutting machine with diamond cutting blade. Samples comprise half core for HQ3, and quarter core for PQ3 with sample intervals determined by the geologist and recorded as a cut sheet.</li> <li>For orientated drill core a cutting refence line is drawn approximately 15mm offset form the orientation line. Drill core is cut along the cut line with the orientation line not</li> </ul>





Criteria	JORC Code explanation
	commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.
Drilling techniques	<ul> <li>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).</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether</li> </ul>
	sample bias may have occurred due to preferential loss/gain of fine/coarse material.
www.kingstonresources.com	m.au

xpianation			
nineralisation types (eg es) may warrant iled information.	<ul> <li>sampled and returned to the core box for future reference.</li> <li>Non-orientated drill core is cut along a reference line that is the best approximation of the extensions of the orientation reference line with the intent of ensuring the same half core is sampled.</li> <li>Samples are placing calico bags and dispatched to SGS laboratory where they are received and registered with a sample receipt document provided as a record of the chain of custody process.</li> </ul>		
e, reverse circulation, er, rotary air blast, onic, etc) and details (eg ole or standard tube, tails, face-sampling bit ether core is oriented t method, etc).	<ul> <li>Diamond Drilling: - Triple tube diamond core, PQ3 collar followed by HQ3 tail. Where possible core was oriented using a Reflex down hole digital orientation tool.</li> <li>Reverse Circulation Drilling:- Historical and recent RC drilling using 5.5 inch downhole hammer and face sampling bit;</li> </ul>		
ing and assessing core recoveries and results o maximise sample ure representative ples. nship exists between and grade and whether have occurred due to gain of fine/coarse	<ul> <li>RC</li> <li>RC samples are recovered at 1 metre downhole interval via a cyclone attached to the side of the drill rig. Analytical samples are split from the cyclone feed directly to a calico sample bag using a rotary cone splitter. The remainder of the bulk is placed in a plastic bag and placed in an orderly manner to allow identification of intervals and potential resampling later.</li> <li>Sample volume is maximised during drilling by ensuring the drill hole is only advanced when the air/material flow is dry, and a slight pause at the end of each meter to allow material to clear the anulus and inner tubes.</li> <li>RC samples are weighed to evaluate specific sample recovery</li> <li>DDH</li> <li>Recoveries were measured by the driller and/or offsider whilst in the splits on the rack at the rig site using a handheld tape measure. Recoveries were written in permanent marker on a core block placed in the core tray. The Geologist and/or field assistant measured the length of recovered core in the trays when meter marking the core. Recovery is recorded as a percentage per run.</li> <li>PQ diameter core was used in more broken ground close to surface in order to</li> </ul>		

Commentary

PQ diameter core was used in more broken ground close to surface in order to maximize recoveries. Additionally, the driller adjusted the length of runs depending on ground conditions, shorter runs were used in intervals of more challenging ground conditions. The driller used variable penetration rates to maximize





Criteria	JORC Code explanation	Commentary
		<ul> <li>recoverable core.</li> <li>At this point there is no observed relationship between sample recovery and grade, although faults and shear areas are zones that are amenable to lower recoveries at Pearse North.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>A qualified geologist logged the drill core and RC chips</li> <li>Logging captured, lithological, alteration, mineralization, structural and weathering information. Drill core also provided geotechnical data</li> <li>Geological logging is qualitative in nature noting the presence of various geological features and their intensities using a numerical 1-5 scale. Quantitative features of the logging include structural alpha and beta measurements captured as well as magnetic susceptibility data.</li> <li>The entire DDH are logged and photographed. Chip trays are also photographed for the record.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>DDH:- Recovered core was subsampled by the logging geologist. Samples ranged in size from 30cm to 1m. all samples were delineated to geological contacts. Individual samples were cut in half using a modified brick saw. The blade was consistently situated 5 degrees to the left of the orientation line where available.</li> <li>Half core HQ samples were collected to a minimum size of 30cm to ensure sufficient representivity of sample for assay. This method is appropriate to capture the finer levels of geological detail not available in RC drilling (majority of holes at Pearse North are RC). The increased detail of logging and sampling will provide greater confidence in ensuing geological and resource models.</li> <li>RC:- RC samples are collected directly from the rig cyclone that has a cone splitter attached. An approx. 1-2kg sample is collected directly into a numbered calico bag with a 1:20 field duplicate collected at the drill rig. No sub sampling was done with RC samples.</li> <li>Routine QAQC was used in the sampling process. Blank material was introduced at 1:20. Certified Reference Material was introduced at a ratio of 1:20 and in areas of identified mineralization.</li> <li>For drill core- Lab duplicates were used of the crushed primary sample. Two samples of the primary crushate were analysed and assessed for reproducibility.</li> <li>Half Core sampling is a standard industry practice and appropriate for the nature of this drill campaign (Validation of previous results).</li> </ul>





Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Gold analysis is determined by fire assay (FA) by using lead collection technique with a 50g sample charge weight and AAS instrument finish. Gold by Fire Assay (FA) is considered a "complete or total" method for total recovery of gold in sample.</li> <li>A multi (42) element suit was used for full geochemical coverage. This was a 4 Acid Digest with an ICP-OES finish. The 4 Acid digest is a total method. Historically Aqua Regia has been used at Mineral Hill. Kingston has decided to use the more robust 4 acid digest for its drilling programs. The sample 0.2g (df=500) is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible. With most silicate based material, solubility is to all intents and purposes complete, however, elements such as Cr, Sn, W, Zr, and in some cases Ba, may prove difficult to bring into solution. This digest is in general unsuited to dissolution of chromite, titaniferous material, barite, cassiterite, and zircon. In sulphidic samples, some of the sulphur may be lost (as H2S) or is partially converted to insoluble elemental sulphur. Antimony can also partly be lost as volatiles under this digest. Some minerals may dissolve, or partly dissolve and precipitate the element of interest. Examples are silver, lead in the presence of sulphur/sulphate, barium in the presence of sulphur/sulphate , Sn, Zr, Ta, Nb through hydrolysis.</li> <li>KSN utilized QAQC in the form of standards, blanks and duplicates in the diamond drilling program at Pearse North. There were no 2SD exceedances in the QAQC performance with the assay results in KSNDDH001 and 005. The QAQC results included in the first batch of assays will contribute to KSN's ongoing monitoring of laboratory performance.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The Senior Geologist and Chief Geologist checked and verified significant intersections.</li> <li>The results are for the second hole of a 5-hole diamond program that contains a number of twin holes.</li> <li>Primary data was collected into an excel logging template. The Senior Geologist managed the database and entered the primary data into a Microsoft Access database that is hosted onsite whilst the company progresses with a database translation to a third-party provider.</li> <li>Assay data are not adjusted except for results that fall under the detection limit for the analytic method and element. These entries are imputed with an absolute value of half</li> </ul>





Criteria	
Location of data points	<ul> <li>Accuracy and qualicate drill holes surveys), trenche other locations u estimation.</li> <li>Specification of t</li> <li>Quality and adec control.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for Results.</li> <li>Whether the data is sufficient to es geological and g appropriate for th Ore Reserve est classifications ap</li> <li>Whether sample applied</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orie achieves unbiase structures and the known, consider.</li> <li>If the relationship orientation and the mineralised struct have introduced should be assess material.</li> </ul>
Sample security	The measures ta security.

JORC Code explanation	Commentary
	the detection limit.
<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>A Differential GPS (DGPS) was used by the Senior Geologist to collect the collar co-ordinate information. DGPS are robust survey collection tools that provide co-ordinates to the cm scale.</li> <li>Data is presented in Geographic Datum Australia (GDA) released 1994- GDA94 Zone 55.</li> <li>Kingston has a Digital Terrain Model (DTM) of the site constructed by a registered Surveyor. This is used for planning purposed when designing drill holes. An updated lidar derived DTM will be used for the upcoming resource estimate.</li> </ul>
<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>This announcement presents the new results for four drill holes.</li> <li>Historically Pearse North has data spacing between 15-20m and a Resource Estimate exists that was produced in 2016. The drilling conducted is to twin and verify the existing intercepts in RC and DDH, and validate the 2016 resource model inputs and model and provide inputs for an updated estimate in 2022.</li> <li>No compositing has been applied.</li> </ul>
<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Drill holes are drilled approximately perpendicular to the overall strike of the mineralized lenses at Pearse North. Sampling Bias due to possible structures is not expected and is something that the subsequent drill holes will be able to provide information for assessment.</li> <li>Drill hole azimuth has swung 'to the right' in a manner consistent between historical and recent drill holes. The resultant azimuth is close to normal to the strike of the mineralised structures and is interpreted to not bias sampling.</li> </ul>
The measures taken to ensure sample security.	<ul> <li>RC residues are stored in the field while the individual samples are placed directly into a plastic bin for submission to the laboratory. Samples are checked into the bin, checked out at the laboratory receiving depot, and cross referenced with sample submission documents</li> <li>Drill Core is stored at the Mineral Holl core yard which is situated within the gated confines of the mine area. Only authorised personnel with a swipe on key card can</li> </ul>
	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> <li>The measures taken to ensure sample security.</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul> <li>gain access. The drillers deliver the core to the core yard where it is received by KSN.</li> <li>After cutting and collation, a KSN employed Field Assistant personally drives the samples to the SGS facility in West Wyalong where it is handed over for receiving, transport, and laboratory analysis.</li> <li>Samples are received and checked at the dispatch centre. Samples are then sent by road freight to Townsville where they are again received, checked and verified, and a formal receipt of samples supplied by the Townsville laboratory.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No new or recent audits or reviews have been completed to date.</li> </ul>





# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Com	nmentary					
Mineral	• Type, reference name/number, location	Tenement	Holder	Grant Date	Expiry Date	Type	Title Area	
tenement and	and ownership including agreements or	ML5240	MINERAL HILL PTY LTD	14/03/1951	14/03/2033	ML	32.37 HA	
land tenure	material issues with third parties such as	EL1999	MINERAL HILL PTY LTD	4/03/1983	4/03/2023	EL	17 UNITS	
status	joint ventures, partnerships, overriding	ML5267	MINERAL HILL PTY LTD	22/06/1951	14/03/2033	ML	32.37 HA	
	royalties, native title interests, historical	ML5278	MINERAL HILL PTY LTD	13/08/1951	14/03/2033	ML	32.37 HA	
	sites, wilderness or national park and	EL8334	MINERAL HILL PTY LTD	23/12/2014	23/12/2022	EL	100 UNITS	
	environmental settings.	ML332	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	22.36 HA	
	• The security of the tenure held at the time	ML333	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	28.03 HA	
	of reporting along with any known	ML334	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	21.04 HA	
	impediments to obtaining a licence to	ML335	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	24.79 HA	
	operate in the area.	ML336	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	23.07 HA	
		ML337	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	32.27 HA	
		ML338	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	26.3 HA	
		ML339	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	25.09 HA	
		ML340	MINERAL HILL PTY LTD	15/12/1976	14/03/2033	ML	25.79 HA	
		ML1695	MINERAL HILL PTY LTD	7/05/2014	7/05/2035	ML	8.779 HA	
	ML1712	MINERAL HILL PTY LTD	28/05/2015	28/05/2036	ML	23.92 HA		
		ML1778	MINERAL HILL PTY LTD	7/12/2018	28/05/2036	ML	29.05 HA	
		ML5499	MINERAL HILL PTY LTD	18/11/1955	14/03/2033	ML	32.37 HA	
		ML5621	MINERAL HILL PTY LTD	12/03/1958	14/03/2033	ML	32.37 HA	
		ML5632	MINERAL HILL PTY LTD	25/07/1958	14/03/2033	ML	27.32 HA	
		ML6329	MINERAL HILL PTY LTD	18/05/1972	14/03/2033	ML	8.094 HA	
		<ul> <li>ML6365</li> </ul>	MINERAL HILL PTY LTD	20/12/1972	14/03/2033		2.02 HA	
		<ul> <li>As part of (NSR) roy</li> </ul>	alty over future p	roduction a	Quintana, at the Mine	there ral Hil	exists a 2 Il Mine.	% Net Smelter Return
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Coincide discover drilling a significat define a Reserve	ent Au-As soil anor ed at Pearse Nort t the prospect by T nt Au grade. Follow number of high gr in 2016 incorpora	malism and h by Triako Triako duri w-up drillin ade lense ating new c	d low-grade o Resource ng the peri ng KBL Min s at the pro trill results	e Au-A es Ltd od 19 ing Lt ospect and g	Ag minera in the 19 99-2005 d in 2010 KBL rele eology m	lisation was 90s. 50m+ spaced several intercepts served to better eased a Resource and odelling.





	Criteria	JORC Code explanation
	Geology	<ul> <li>Deposit type, geological setting and styl of mineralisation.</li> </ul>
0120 0130 0130	Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the informatior 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.</li> </ul>
	www.kingstonresources.c	com.au

ria	JORC Code explanation	Commentary
ogy	• Deposit type, geological setting and style of mineralisation.	• The Pearse North deposit at Mineral Hill is interpreted to be an epithermal shear- hosted Au-Ag within the Late Silurian to Early Devonian Mineral Hill Volcanics, a pile of proximal rhyolitic volcaniclastic rocks with minor reworked volcaniclastic sedimentary rocks. The sulphide mineralisation, comprising predominantly pyrite, arsenopyrite and stibnite, is typically disseminated within quartz-mica (sericite) schist At the Pearse deposit to the south, analysis by Laser Ablation ICP-MS has found that fine-grained gold is mostly concentrated in arsenopyrite and fine-grained 'spongy' (melnikovite) pyrite with lower concentrations of gold hosted by crystalline pyrite. Petrological analysis of drill core confirms that mineralisation at Pearse North has similar characteristics to that at Pearse South.
hole mation	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>See Tabulated data in the body of the reports.</li> <li>Exploration results not being reported</li> </ul>





Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Exploration results not being reported
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>Drilling was approximately perpendicular to the overall strike of mineralization.</li> <li>Exploration results not being reported</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	• See the body of reports for maps, diagrams, and tabulations.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be</li> </ul>	Exploration results not being reported





Criteria	JORC Code explanation	Commentary
	practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	<ul> <li>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         <ul> <li>size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul> </li> </ul>	• Arsenic, Antimony and Sulphur are deleterious elements at Pearse North. These values are consistent with those previously reported and within the current Resource Estimate and have not been reported as they are deemed immaterial for the purpose of this release.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Exploration results not being reported





# Section 3 Estimation and Reporting of Mineral Resources – Pearse North

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Database is maintained by KSN who compile and validate all data files on the project.</li> <li>Cube completed validation checks on the database including checks for overlapping sample intervals, checks on minimum and maximum assays, depths, azimuths, dips and co-ordinates for consistency. No material errors were identified.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for the Mineral Resource estimate is Stuart Hayward who has conducted site visits on multiple occasions.</li> <li>The resource geologist conducting the mineral resource estimation (Marcus Osiejak) has not conducted a site visit, as there is no current mining activity.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geological confidence is considered by Cube to be moderate to high.</li> <li>The mineralised volume at Pearce North has been based on a drill section interpretation of mineralisation defined by a lower limit gold grade of 0.2 g/t Au, along with the observed close association between mineralisation and the structural interpretations. Twelve mineralisation domains have been defined including a low-grade domain defined by all Au assay values above a 0.2 g/t cut-off. Internal to this domain a eleven high-grade wireframe included Au values above a 2.0 g/t cut-off. These domains represent clearly defined breaks in the mineralisation population as shown in a sample boundary analysis conducted. Drill hole spacing within the main resource area was mostly completed on a 20 metre by 20 metre drill pattern.</li> <li>The factors affecting continuity both of grade and geology are most likely to be associated with structural controls and local complexity, the knowledge of which is limited with the current spacing of information. The broad approach to the mineralisation modelling is an attempt to model an unbiased interpretation.</li> </ul>
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 high grade gold mineralisation identified varies from 5 m to 50 m in width and goes to a depth of 150 m below surface along the 225 m strike length drilled to date. The zone strikes 5° to the north-east and dips to the west.





Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by- products.
- Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- Grade estimation for Gold, Silver, Arsenic, Sulphur and Antimony were completed using Surpac software. Geostatistical analysis and variography were completed using Snowden's Supervisor v8 software.
- Using parameters derived from modelled variograms Au, Ag, As, S and Sb grade data were interpolated into 10 mE x 10 mN x 5 mRL sized panels using Ordinary Kriging (OK). Surpac software was used for the estimations. Three dimensional mineralised wireframes were used to domain the data. Sample data was composited to 1 m down hole lengths using the best fit method.
- The influence of extreme grade values was addressed by reducing high outlier values by applying top-cuts to the data. These top-cut values were determined through statistical analysis (histograms, log probability plots, coefficients of variation and summary multivariate and bi-variate statistics). A visual 3D inspection of the relative location of grade outliers and higher-grade samples was conducted.
- Down hole and directional variograms were modelled using normal score transformations of the skewed data sets for each element. Nuggets were low to moderate. Variogram analysis was confined to the main lodes with parameters applied to adjacent lodes and search ellipse parameters adjusted to match the individual lode geometry.
- Scatter plots and regression analysis was completed on the main domains to review the relationship between the Au and Ag, As, S and Sb variables. Due to the low-to-moderate correlation Cube has used separate variograms for the variables for each domain; however, the search parameters are the same to ensure some level of consistency between Au, Ag, As, S and Sb interpolations.
- Cube carried out a kriging neighbourhood analysis (KNA) on several test areas within the domains to determine the optimal parent block size and number of informing samples for estimation. A minimum of 8 and maximum of 16 samples per block were used for the estimation The ellipsoid search parameters were based on the variogram ranges, with the search ellipse dimensions similar to the variogram range, with anisotropies retained. Hard boundaries were used between the high and low grade domains for the estimate.
- Octant restrictions were not used, and estimates were into parent blocks, not sub-blocks. Search ellipse rotation directions were the same as for the variograms. A first pass of 40 m was used with 82% of blocks in the main lodes estimating on the first pass. A second pass was used to fill remaining blocks which doubled the search distance but maintained all other parameters. Distance limiting was used to ensure high grade values didn't have a greater spatial influence than is warranted.
- A three-step process was used to validate the model. A qualitative assessment was





		completed by slicing sections through the block model in positions coincident with drilling. A quantitative assessment of the estimate was completed by comparing the average grades of the declustered composite file input against the block model output for all the resource objects. A trend analysis was completed by comparing the interpolated blocks to the sample composite data within the main lodes. This analysis was completed for strike, cross-strike and elevations across the main lodes at each deposit. Validation plots showed good correlation between the composite grades and the block model grades.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul> <li>A nominal lower cut-off grade of 0.2 g/t Au was used to define the mineralised domains to encompass the complete mineralised distribution and produce a model that reduces the risk of conditional bias that could be introduced where the constraining interpretation and data selection is based on a significantly higher grade than the natural geological grade cut-off.</li> <li>The cut-off grade for reporting (above 1.0 g/t Au) was used in line with the previous resource reporting and is based on the results of Whittle optimisation shells using cost and recovery data sourced from the operation at Mineral Hill.</li> <li>A Whittle optimisation shell using site operational costs, a gold price of US\$1,800/ounce and a silver price of US\$24/ounce has been used to limit the MRE to that with reasonable expectations of economic extraction.</li> </ul>
<i>Mining factors or assumptions</i>	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>The shallow occurrence of the mineralisation indicates that open pit mining is appropriate for Pearce North in line with other deposits in the area.</li> </ul>





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.	<ul> <li>No specific assumptions were made regarding metallurgical factors for this estimate.</li> <li>Metallurgical testwork and previous operations for nearby deposits have shown the resource would be economically treated using standard crush-grind-float concentration and carbon-in-leach cyanidation technology installed in the existing processing plant.</li> </ul>
Environmental factors or assumptions	<ul> <li>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 green fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>Operations at Mineral Hill will utilise the existing infrastructure (including waste dumps and tailings storage facilities).</li> <li>Existing development and environmental approvals are in place and will be extended.</li> </ul>
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density</li> </ul>	<ul> <li>Bulk density values for Pearce North have been measured based on the Archimedean Principle using the immersion method for individual core samples. A total of 201 density measurements were available for use, with the majority (134) of these being in fresh rock. This data has been used as the basis of the block model bulk density.</li> <li>A default bulk density of 2.37 t/m3 was assigned to the oxide material, 2.52 t/m3 assigned to transitional and 2.65 t/m3 assigned to fresh rock.</li> </ul>





	estimates used in the evaluation process of the different materials.	
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	Cube has considered all the relevant criteria and has applied a classification to the estimated Mineral Resources of Indicated and Inferred. The portions of the July 2022 MRE classified as Indicated have been flagged by medium to high quality estimation parameters, an average distance to nearest sample of less than 25m and an average slope of regression (true to estimated block) of > 0.7. The drill spacing within the Indicated portion of the resource is relatively close, at a nominal 20 m drill spacing on 20 m sections. The portions of the July 2022 MRE classified as Inferred represent the domain to the south of the main orebody. In these portions geological continuity is present but not consistently confirmed by 20 m x 20 m drilling. The Inferred portions of the MRE are defined by lower quality of estimation parameters, an average slope of regression (true to estimated block) of < 0.6 and an average distance to composites used of > 30 m. Classification criteria and application to the model have been reviewed by the resource geologist, Cube and Competent Person. The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral</li> <li>Resource estimates.</li> </ul>	No external reviews have been completed, although the work has been peer reviewed internally by Cube Consulting.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic</li> </ul>	This is addressed in the relevant paragraph on Classification above. The Mineral Resource relates to global tonnage and grade estimates. No mining has previously taken place at Pearse North





evaluation. Documentation should include
assumptions made and the procedures used.
These statements of relative accuracy and
confidence of the estimate should be

 These statements of relative accuracy a confidence of the estimate should be compared with production data, where available.

•





# Section 3 Estimation and Reporting of Mineral Resources – Pearse South

Criteria	JORC Code Explanation	COMMENTARY
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Database is maintained by KSN who compile and validate all data files on the project.</li> <li>Cube completed validation checks on the database including checks for overlapping sample intervals, checks on minimum and maximum assays, depths, azimuths, dips and co-ordinates for consistency. No material errors were identified.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for the Mineral Resource estimate is Stuart Hayward (KSN/Mineral Hill Pty Ltd) who has conducted site visits on multiple occasions.</li> <li>The resource geologist conducting the mineral resource estimation (Marcus Osiejak) has not conducted a site visit, as there is no current mining activity.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geological confidence is considered by Cube to be moderate to high.</li> <li>The mineralised volume at Pearce South has been based on a drill section interpretation of mineralisation defined by a lower limit gold grade of 0.3 g/t Au, along with the observed close association between mineralisation and the structural interpretations. Three mineralisation domains have been defined including a low-grade domain defined by all Au assay values above a 0.3 g/t cut-off. Internal to this domain a high-grade wireframe included Au values above a 2.0 g/t cut-off. These domains represent clearly defined breaks in the mineralisation population as shown in a sample boundary analysis conducted. A third narrow, sub-vertical east dipping domain was created to the south. Drill hole spacing within the main resource area was mostly completed on a 12.5 metre by 12.5 metre drill pattern.</li> <li>The factors affecting continuity both of grade and geology are most likely to be associated with structural controls and local complexity, the knowledge of which is limited with the current spacing of information. The broad approach to the mineralisation modelling is an attempt to model an unbiased interpretation.</li> </ul>
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 gold mineralisation identified varies from 5 m to 70 m in width and goes to a depth of 125 m below surface along the 225 m strike length drilled to date. The zone strikes 15° to the north-east and dips approximately 50-60° to the east.





Estimation and modelling techniques

- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by- products.
- Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- Grade estimation for Gold, Silver, Arsenic, Sulphur and Antimony were completed using Surpac software. Geostatistical analysis and variography were completed using Snowden's Supervisor v8 software.
- Using parameters derived from modelled variograms Au, Ag, As, S and Sb grade data were interpolated into 6 mE x 6 mN x 3 mRL sized panels using Ordinary Kriging (OK).
   Surpac software was used for the estimations. Three dimensional mineralised wireframes were used to domain the data. Sample data was composited to 1 m down hole lengths using the best fit method.
- The influence of extreme grade values was addressed by reducing high outlier values by applying top-cuts to the data. These top-cut values were determined through statistical analysis (histograms, log probability plots, coefficients of variation and summary multivariate and bi-variate statistics). A visual 3D inspection of the relative location of grade outliers and higher-grade samples was conducted.
- Down hole and directional variograms were modelled using normal score transformations of the skewed data sets for each element. Nuggets were low to moderate. Variogram analysis was confined to the main lodes with parameters applied to adjacent lodes and search ellipse parameters adjusted to match the individual lode geometry.
- Scatter plots and regression analysis was completed on the main domains to review the relationship between the Au and Ag, As, S and Sb variables. Due to the low-to-moderate correlation Cube has used separate variograms for the variables for each domain; however, the search parameters are the same to ensure some level of consistency between Au, Ag, As, S and Sb interpolations.
- Cube carried out a kriging neighbourhood analysis (KNA) on several test areas within the domains to determine the optimal parent block size and number of informing samples for estimation. A minimum of 6 and maximum of 14 samples per block were used for the estimation The ellipsoid search parameters were based on the variogram ranges, with the search ellipse dimensions similar to the variogram range, with anisotropies retained. Hard boundaries were used between the high and low grade domains for the estimate.
- Octant restrictions were not used, and estimates were into parent blocks, not sub-blocks. Search ellipse rotation directions were the same as for the variograms. A first pass of 20m was used with 91% of blocks in the main lodes estimating on the first pass. A second pass was used to fill remaining blocks which doubled the search distance but maintained all other parameters. Distance limiting was used to ensure high grade values didn't have a greater spatial influence than is warranted.
- A three-step process was used to validate the model. A qualitative assessment was





		completed by slicing sections through the block model in positions coincident with drilling. A quantitative assessment of the estimate was completed by comparing the average grades of the declustered composite file input against the block model output for all the resource objects. A trend analysis was completed by comparing the interpolated blocks to the sample composite data within the main lodes. This analysis was completed for strike, cross-strike and elevations across the main lodes at each deposit. Validation plots showed good correlation between the composite grades and the block model grades.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>A nominal lower cut-off grade of 0.3 g/t Au was used to define the mineralised domains to encompass the complete mineralised distribution and produce a model that reduces the risk of conditional bias that could be introduced where the constraining interpretation and data selection is based on a significantly higher grade than the natural geological grade cut-off.</li> <li>The cut-off grade for reporting (above 1.0 g/t Au) was used in line with the previous resource reporting and is based on the results of Whittle optimisation shells using cost and recovery data sourced from the operation at Mineral Hill.</li> <li>A Whittle optimisation shell using site operational costs, a gold price of US\$1,800/ounce and a silver price of US\$24/ounce has been used to limit the MRE to that with reasonable expectations of economic extraction.</li> </ul>
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>Pearse South has been historically mined by Open Cut with remnant mineralisation in the bottom of the existing pit.</li> <li>Open pit mining is proposed for Pearce South in line with other deposits in the area and would essentially consist of a push back to the west and depth extension of the existing open cut pit.</li> </ul>





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.	<ul> <li>No specific assumptions were made regarding metallurgical factors for this estimate.</li> <li>The deposit has previously been mined and successfully processed for gold and silver extraction. Metallurgical testwork and previous operations have shown the resource can be economically treated using standard crush-grind-float concentration and carbon-inleach cyanidation technology installed in the existing processing plant.</li> </ul>
Environmental factors or assumptions	<ul> <li>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 green fields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>Mineral Hill will utilise the existing infrastructure (including waste dumps and tailings storage facilities).</li> <li>Existing development and environmental approvals are in place and will be extended.</li> </ul>
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density</li> </ul>	<ul> <li>Bulk density values for Pearce South have been measured based on the Archimedean Principle using the immersion method for individual core samples.</li> <li>A default density was attributed according to the bulk density work completed by KBL (2011). This was done based on an undetermined number of density measurements from Pearse drill core. The KBL bulk density work to oxidation levels in the rock. A default density for Oxide was 2.25, Transitional 2.35 and 2.57 for Fresh rock.</li> <li>In this estimate, 201 density values with spatial location were analysed with a median value determined as a default bulk density assigned to oxide domains. A default of 2.37 t/m<sup>3</sup> was assigned to the oxide material, 2.52 t/m<sup>3</sup> assigned to transitional and 2.65 t/m<sup>3</sup> assigned to fresh rock.</li> </ul>





	estimates used in the evaluation process of the different materials.	
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Cube has considered all the relevant criteria and has applied a classification to the estimated Mineral Resources of Indicated and Inferred.</li> <li>The portions of the June 2022 MRE classified as Indicated have been flagged by medium to high quality estimation parameters, an average distance to nearest sample of less than 20m and an average slope of regression (true to estimated block) of &gt; 0.7. The drill spacing within the Indicated portion of the resource is relatively close, at a nominal 12.5 m drill spacing on 12.5 m sections.</li> <li>The portions of the June 2022 MRE classified as Inferred represent the domain to the south of the main orebody. In these portions geological continuity is present but not consistently confirmed by 12.5 m x 12.5 m drilling. The Inferred portions of the MRE are defined by lower quality of estimation parameters, an average slope of regression (true to estimated block) of &lt; 0.4 and an average distance to composites used of &gt; 30 m.</li> <li>Classification criteria and application to the model have been reviewed by the resource geologist, Cube and Competent Person.</li> <li>The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral</li> <li>Resource estimates.</li> </ul>	<ul> <li>No external reviews have been completed, although the work has been peer reviewed internally by Cube Consulting.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic evaluation. Documentation should include</li> </ul>	<ul> <li>This is addressed in the relevant paragraph on Classification above.</li> <li>The Mineral Resource relates to global tonnage and grade estimates.</li> <li>Mining has previously taken place at Pearse South (ceasing in 2016), with mill reconciliation showing very good agreement between the Reserves and actual production (tonnes, grade and Au ounces). Contained Au ounces from the resource model that was used to derive the historic Reserves within the mined pit are very similar to those for the current MRE within the mined pit – both have ~40k ounces Au above a 1 g/t Au cut-off. Therefore, there is high confidence in the current 2022 mineral resource estimate, both within and below the mined pit.</li> </ul>





assumptions made and the procedures used.
These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

.





# **Section 4 Estimation and Reporting of Ore Reserves**

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the</li> </ul>	The Mineral Resource Estimates for Pearse South and Pearse North were prepared by Marcus Osiejak of Cube Consulting. See Mineral Resource Estimate reports:
Ore Reserves	Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Technical Note - Kingston Pearce South MRE June_2022
		Technical Note - Kingston Pearce North MRE July_2022_20220805
		The Mineral Resources are inclusive of the Ore Reserves.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> </ul>	John Wyche visited Mineral Hill Mine 27 <sup>th</sup> October 2022 Areas inspected included the:
	<ul> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Access from Condoblin,
	indicate why this is the case.	Existing Pearse South opencut pit,     Site of Pearse North, Dit
		<ul> <li>Site of Pearse North Pit,</li> <li>Existing Pearse waste rock dump (to be used for Pearse South and North Pits).</li> </ul>
		<ul> <li>Process plant to be used for flotation of sulphide ore and CIL gold recovery from oxide ore and flotation tailings (currently being prepared to be brought off care and maintenance),</li> </ul>
		<ul> <li>Other existing pits, underground entries and tailings facilities for other deposits at the Mineral Hill Mine</li> </ul>
		The visit confirmed that assumptions made for the mine design and operations are appropriate for the site logistics, geology and topography.





Criteria	JORC Code explanation	Commentary
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	The Pearse South and North Pit ore reserves are for re-commencement of mining and processing operations which ran through 2015 and 2016. Pearse South Pit is a pushback and deepening of an existing pit. Pearse North Pit is a new opencut on the same lode 300 metres north of Pearse South. Mining conditions are unchanged from 2016 and the gold / silver ore will be processed in the same flotation / CIL plant used in 2016. Processing assumptions are based on monthly production records and current confirmatory test work for Pearse North. Personnel from the 2016 operation are currently employed on site by KSN which allows for continuity of operating experience. In addition to recent production records and personal experience of site personnel, various reports prepared by or for the previous owner, KBL Mining Limited, were available for guidance. These include: <i>"Mineral Hill Life of Mine Study"</i> , KBL Mining, 16 <sup>th</sup> June 2016 <i>"Pearse Open Pit Slip"</i> , M Turner, 28 <sup>th</sup> May 2016 (geotechnical review).
Cut-off	• The basis of the cut-off grade(s) or	Both Dearse South and North Pits will mine the same gold / silver
parameters	quality parameters applied.	deposit. Apart from a small tonnage of remaining oxide mineralisation in Pearse North, all the ore is transition or fresh (sulphide).
		Oxide ore from Pearse North will be processed to gold / silver dore using the existing CIL circuit installed by KBL in 2015. Process records from 2015 show a recovery 70% for both gold and silver. Using this with process and site costs updated to 2022 by KSN and metal prices





Criteria	JORC Code explanation
www.kingstonresources.com	au

Commentar			1					
	71	1.24		101		 11	1.1	
Sommentar	1				-			 <u> </u>

provided by KSN (gold US\$1800/oz, silver US\$24.00/oz, AUD/USD = 0.70) the oxide cut off grade was set by calculating the net value per tonne (value of recovered gold and silver less processing, site G&A and realisation costs). Blocks with a net value > \$0.00 per ROM tonne are ore. All other blocks are waste. Based on oxide grade tonnage reports for Pearse North, the \$0.00 net value cut off equates to a gold grade of approximately 0.8 g/t.

Net value cut offs were also used for transition / fresh ore from Pearse South and North. This approach allows for variable ratios of gold to silver through the deposits. The process route for transition / fresh ore is:

- Crushing / grinding / flotation to produce a gold / silver concentrate for sale.
- CIL recovery of gold and silver from the flotation tailings.

Process records from November 2015 to August 2016 showed consistent grade / recovery relations for gold and silver. Empirical formulae derived from the production records were used to estimate gold and silver recoveries, concentrate and tail grades and mass recoveries.

Estimated recoveries to concentrate for the two pits average 57% for gold and 64% for silver. Note that recoveries were modelled on a block by block basis for the ore reserve.

KSN held discussions with metal traders to estimate likely gold and silver payabilities at a range of concentrate grades:





JORC Code explanation

Concentrate Gold Grade	Payability
Au g/t	% of value
40	82%
30	75%
20	67%
15	60%

All of the expected concentrate production is greater than 30 g/t Au. It was assumed that the same payability would apply to gold and silver based on the concentrate gold grade.

The Pearse mineralisation includes arsenic and antimony. Recoveries of these elements to concentrate were estimated from the 2015 / 2016 process records. Concentrate contaminant grades are expected to average 1.9% As and 1.4% Sb. It was assumed that these grades would not incur penalties.

CIL recoveries of 20% were applied to gold and silver in the flotation tailings based on 2015 / 2016 production records.

KSN provided 2022 updates of process and site G&A operating costs. Concentrate transport costs and gold and silver refining charges are based on values from the 2016 Life of Mine Study updated against information from recent similar projects.





Criteria	JORC Code explanation	Commentary
		Metal prices were provided by KSN (gold US\$1800/oz, silver US\$24.00/oz, AUD/USD = 0.70).
		Using these recoveries and costs the net value per ROM was calculated for each block in the resource block model.
		Net value = Value of recovered gold and silver less processing + site G&A + realisation costs.
		The cut off grade is Net Value per ROM tonne > A\$0.00.
		The net value cut off approach accounts for variable ratios of gold to silver through the deposit, grade recovery relationships for gold and silver in concentrate, variable payability on concentrates based on gold grade and gold and silver recovery to dore from the flotation tailings.
		Grade / tonnage reports on the transition / fresh ore from both pits show that Net Value > A\$.00/tonne equates closely to gold cut off grades of 0.93 g/t Au for Pearse South and 1.37 g/t Au for Pearse North. The approximate gold cut off for Pearse North is higher due to a lower average silver grade than Pearse South.
Mining factors or	The method and assumptions used as	Opencut Mining
assumptions	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	Opencut mining will be conventional methods using hydraulic excavators and mining trucks. All material mined will require blasting.
	preliminary or detailed design).	Pearse South Pit will be a pushback and deepening of the existing pit.





Criteria	JORC Code explanation	Commentary
	<ul> <li>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.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Pearse North will be a new pit.</li> <li>The pushback in Pearse South Pit will require mining of narrow benches. Additional care will be required in mining the slip zone on the northern wall. The production schedule assumes the mining fleet will be shared between the Pearse South and Pearse North pits which are 350 metres apart. This will allow Pearse North to use most of the fleet capacity while the upper benches of Pearse South are being mined more slowly.</li> <li>Current site personnel who were present during mining of the Pearse South pit during 2015 and 2016 report clear visual definition of ore and waste zones, minimal blast movement and a high degree of mining selectivity. Inspection of ore waste contacts in the pit walls during the October 2022 site visit supported this assessment.</li> <li>Reconciliation records are not available to quantify selectivity, so dilution was modelled by re-blocking the resource model (which was constrained in high and low grade domain wireframes) to 2.5 x 2.5 x 2.5 metre blocks. This is the planned mining flitch height and is coarser than the mining widths reported anecdotally. Compared to the original subblocked resource model, the re-blocked version shows approximately 20% dilution at low gold grade and 5% ore loss.</li> <li>Pearse South pit is connected by an existing haul road to the existing crusher location and to the existing waste rock dump. A short haul extension over gently sloping ground is required to access Pearse North pit.</li> </ul>





	Criteria	JORC Code e
sonal use only	Metallurgical factors or assumptions	<ul> <li>The metallurgical prand the appropriate process to the style</li> <li>Whether the metallat well-tested technologinature.</li> <li>The nature, amount representativeness work undertaken, the metallurgical domain the corresponding recovery factors apperent of the existence of an pilot scale test work which such samples representative of the whole.</li> <li>For minerals that an specification, has the estimation been bas appropriate mineral</li> </ul>
		-,
	www.kingstonresources.co	m.au

RC Code explanation	Commentary
	with a hired fleet or a contract miner over a 12 to 18 month period.
	Mining costs for the pit optimisation and financial model were set at A\$6.00/tonne for ore and \$A5.75 for waste based on a first principles cost model using current wet hire rates for the fleet, contract drill and blast costs from similar operations and 2022 wages and salary costs.
allurgical process proposed appropriateness of that to the style of mineralisation.	The same process plant used for Pearse South ore in 2015 / 2016 will be used for Pearse South and Pearse North pits.
the metallurgical process is ed technology or novel in	A small tonnage of oxide ore from Pearse North pit will be treated by CIL to produce a gold / silver dore. Process records from 2015 / 2016
rre, amount and tativeness of metallurgical test lertaken, the nature of the gical domaining applied and sponding metallurgical factors applied.	All remaining ore from both pits is transition / fresh (sulphide). It will be treated by crushing / grinding/ flotation to produce a gold / silver concentrate for sale.
Imptions or allowances made prious elements. tence of any bulk sample or le test work and the degree to	The flotation tailings will be processed in the CIL circuit to recover gold and silver to dore.
ch samples are considered tative of the orebody as a	Process records from November 2015 to August 2016 showed consistent grade / recovery relations for gold and silver. Empirical formulae derived from the production records were used to estimate
erals that are defined by a tion, has the ore reserve on been based on the ate mineralogy to meet the	gold and silver recoveries, concentrate and tail grades and mass recoveries. Estimated recoveries to concentrate for the two pits average 57% for gold and 64% for silver.
tions?	The Pearse mineralisation includes arsenic and antimony. Recoveries of

these elements to concentrate were estimated from the 2015 / 2016 process records. Concentrate contaminant grades are expected to





Criteria	JORC Code explanation Commentary	
	average 1.9% As and 1.4% Sb.	
	CIL recoveries of 20% were applied to gold and silver in tailings based on 2015 / 2016 production records.	the flotation
	Pearse North pit has the same mineralogy as Pearse Se expected to have the same process recoveries.	outh and is
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the	urrent and
	<i>consideration of potential sites, status</i> of design options considered and. EPL 3151 specifically allows for the processing of 700kt scope of the current works.	t pa, almost double the
	<ul> <li>where applicable, the status of approvals for process residue storage and waste dumps should be reported</li> <li>There is an ongoing environmental monitoring programs complies with all conditions laid out in the license.</li> </ul>	me to ensure the site
	There is a bore license in place for the dewatering of the workings that covers all site water requirements up to 63 (80BL242753) with current extraction in the order of 230	e underground 30MI pa 0MI pa.
	The site has a Rehabilitation Management Plan and the rehabilitation bond in place to cover all currently approv processing activities.	ed mining and
Infrastructure	The existence of appropriateMining of the two Pearse pits will be the next phase of recommendation;infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation;Mining of the two Pearse pits will be the next phase of re commencement of operations at Mineral Hill. Gold is cu produced by CIL treatment of tailings and refurbishment the process plant is in progress.	e- rrently being t of the rest of
	<i>infrastructure can be provided or</i> All infrastructure necessary to mine and process ore fro	m the two

www.kingstonresources.com.au





iteria	JORC Code explanation	Commentary	
	accessed.	Pearse pits is in place. This include rock dump, haul roads, processing workshop and site access.	es power and water supply, waste plant, tailings storage facility, offices,
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> </ul>	Mining costs for the pit optimisation A\$6.00/tonne for ore and \$A5.75 fo cost model using current wet hire ra blast costs from similar operations	n and financial model were set at or waste based on a first principles ates for the fleet, contract drill and and 2022 wages and salary costs.
	<ul> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> </ul>	Process costs are based on actual inputs such as power, labour, grind	costs from 2016 updated to 2022 for ing media and reagents.
	<ul> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet</li> </ul>	Site fixed costs are based on curre processing tailings. A large portion administration workforce is already	nt actual costs. The site is currently of the required process and employed.
	<ul> <li>specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	Concentrate transport costs are ba updated to 2022 by comparison to	sed on the 2016 Life of Mine Study similar projects.
		Gold and silver refining charges are	e based on recent Australian costs.
		Payabilities for gold and silver in co discussions with metal traders.	oncentrate are based on KSN
		Concentrate Gold Grade	Payability
		Au g/t	% of value
		40	82%
		30	75%

20

67%





Criteria	JORC Code explanation	Comn	nentary				
			15		60%		
		It was assumed that silver would have the same payability as gold.					-
		The go 1.4%	old / silver concentr Sb. It was assumed	ates are expe that these lev	cted to average 1.9% vels would not incur p	6 As and benalties.	
		An ad agains additio conce	valorem royalty of 4 st the formula provid onal 2% third party r ntrate.	4% to the NS\ led by the NS oyalty is appli	N Government was o W Office of State Re ied to the gold and si	calculated venue. An lver in	
		KSN r conve	nominated a AUD/U rsions to AUD.	SD exchange	rate of 0.70 for meta	Il price	
Revenue	The derivation of, or assumptions	KSN r	nominated metal priv	ces of:			
factors	made regarding revenue factors	Metal	USD/oz	AUD/USD	AUD/oz	AUD/gm	
	including head grade, metal or commodity price(s) exchange rates.	Gold	\$1,800.00	\$0.70	\$2,571.43	\$82.67	
	transportation and treatment charges,	Silver	\$24.00	\$0.70	\$34.29	\$1.10	
	<ul> <li>penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co- products.</li> </ul>	Payabilities of gold and silver in concentrate are based on current discussions between KSN and metal traders:					
		Concentrate Gold Grade			Payability		
		Au g/t			% of value		
		40			82%		
		30			75%		
		20			67%		
		15			60%		





	Criteria	JORC Code explanation
ISG ON	Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodi- consumption trends and factors like to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contri</li> </ul>
Grsonal	Economic	<ul> <li>The inputs to the economic analysis produce the net present value (NPV the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>
	www.kingstonresources.c	com.au

odity, ikely the	There is no practical restriction on the amount of gold or silver bullion that can be sold from the metal produced through the CIL circuit. Demand is reflected in the price which is set for this Ore Reserve against KSN's forecast.
rsis ely he ner ance ntract.	Gold / silver concentrates are subject to contracts struck with smelters. Based on KSN's current discussions with metal traders, concentrates can be sold with as low as 15 g/t Au. All of the concentrate from the two Pearse pits is expected to be above 30 g/t Au and should be readily saleable.
rsis to IPV) in ence Ig etc.	KSN's financial model for the Pearse pits forms part of the Mineral Hill life of project model which includes areas which are not yet at Ore Reserves status. The Pearse pits are mined early in the project schedule and can be while no other areas are active so their financial outcomes can be isolated.
	The two Pearse opencuts form the first stage of the Mineral Hill redevelopment. The majority of mine production is planned to come from underground mining after completion of the Pearse pits. The estimated operating cash flow from the Pearse pits exceeds the estimated cost to re-furbish the existing processing plant which is then planned to be used

It was assumed that silver would have the same payability as gold.

Commentary

for the underground mine.

Opencut mining and ore processing is planned over 15 months. For such a short period consideration of value for the Ore Reserve estimate considers undiscounted rather than discounted cash flow. The opencuts





Criteria	JORC Code explanation	Commentary
		are estimated to generate sufficient cash flow to pay for process plant refurbishment, even without later contribution from the underground mine.
		Sensitivity checks on the opencut cash flows show they remain positive against:
		<ul> <li>Increase in mining costs of over 50%</li> </ul>
		<ul> <li>Increase in processing costs of over 50%,</li> </ul>
		<ul> <li>Reduction in gold and silver prices (or process recoveries) of 20%.</li> </ul>
		A combined sensitivity case of 115% of base case mining and processing costs and 85% of base case gold price still returned a positive value cash flow.
Consigl	The statue of agreements with key	
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	The Mineral Hill Mine has agreements in place with all local landholders. There are no current disputes likely to affect successful implementation of the Pearse mine plan.
		The mine was put on care and maintenance when operations were halted in 2016. Since KSN acquired the project in early 2022 local community and commercial relationships have been re-established to support the tailings treatment operation and overall project re-start.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally</li> </ul>	Re-commencement of mining and processing of ore from the Pearse pits is considered generally low risk because there is a large body of recent experience from 2015 / 2016 operations and key personnel from





Criteria	JORC Code explanation	Commentary
	<ul> <li>occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>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.</li> </ul>	that period are currently working for KSN. A potential risk remains with mining through and ongoing management of the slip on the northern wall of Pearse South pit. Berms in the slip area have been widened to 10 metres to flatten the slope, contain failures to the inter-berm height of 10 metres and allow access any small failures which may occur during mining. No pit ramps will be formed in the expected wall area of the slip zone. Slope monitoring should allow safe working of the area. However, a risk of increased cost and delays to mining remains if the slip progresses despite the mitigation measures taken. KSN has all approvals in place to carry out mining and processing of the Pearse pits.
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	Only Indicated Mineral resources are considered in the Ore Reserve Estimate. There are no Measured resources in the current Mineral Resource Estimate. Probable Ore Reserves are derived only from Indicated Mineral Resources. In the opinion of the Competent Person when taken as a whole the modifying factors have been defined to a level of confidence commensurate with a Probable Ore Reserve. While further work during project start up, such as tendering of the fleet hire and the drill and blast contract, will continue to improve confidence there are no issues currently identified which are likely to have a material impact on the





Criteria	JORC Code explanation
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to the tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are the procedures of the testing areas of uncertainty of the procedures areas and procedures of the procedures and the procedures are provided to the procedures and the procedures are provided to the procedures and the procedures and the procedures and the procedures and the proced</li></ul>
	remaining areas of uncertainty at the
www.kingstonresources.co	m.au

Pearse South pit is a pushback and deepening of an existing pit that was mined in 2015 and 2016. Anecdotal reports of selective mining of the Pearse South ore zones are supported by observation of ore waste contacts in the current pit walls. Dilution modelling by re-blocking of the resource model should provide further confidence that the forecast tonnes and grades can be realised. Confidence in the Pearse South Ore Reserve is mainly dependent on confidence of the Mineral Resource Estimate which is Indicated for the entire resource. On the bases of the foregoing comments it can be expected that the position of the mineralisation will closely match the model. The mine should extract the ore at close to the re-blocked grades. However, since the Resource Estimate is Indicated rather than Measured there may be some variation from the predicted grades on a local basis.

viability of the project and the Ore Reserves as stated.

No audits of the Ore Reserves have been undertaken.

Commentary

Pearse North pit has no mining experience and no ore waste exposures available. Geologically it is described as being the same as Pearse South so it is expected to have a similar level of mining selectivity. However, the oxide zone may be less well defined due to weathering.

Overall, it is reasonable to expect a reasonable degree of confidence in definition and mining of the ore zones at a local level. This is subject to confidence in the Indicated Resource estimate.





Criter	a JORC Code explanation	Commentary
	<ul> <li>current study stage.</li> <li>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.</li> </ul>	