

# Havilah Resources

Share Purchase Plan (SPP) provides opportunity to purchase new shares at \$0.17



At an 18.6% discount to the 5 day VWAP preceding offer announcement

### Use of funds raised – to achieve short term objectives

#### West Kalkaroo gold starter open pit - priority objective

- Advance feasibility study and permitting work with the aim of commencing gold mining development activities during 2021.
- Ongoing resource infill drilling and resource expansion drilling along major mineralised fault zones.
- Continuation of collaborative research to determine the best recovery options for REE from West Kalkaroo oxidised gold ore.

#### Mutooroo copper-cobalt-gold project

• Advance PFS work, which will include a major component of additional resource drilling and process plant design and testing.

#### Iron ore assets

- Advance mining scoping study for an open pit at Grants Basin with minimal overburden and waste (iron ore outcrops at the surface).
- JORC resource delineation drilling at Grants Basin in support of the scoping study (delayed until 2021 due to recent flooding in the area).
- Detailed testing of cost-efficient dry ore processing methods using representative iron ore samples.

#### **Regional exploration**

- Many high conviction regional exploration targets that could lead to new discoveries.
  - o Croziers copper-tungsten-REE prospect: Right geology, four previous exploration drillholes each with ore-grade intersections.
  - o Mutooroo copper-cobalt-gold: Follow-up ore-grade copper in 1960's drillholes and very high copper/cobalt surface geochemical anomalies.
  - o Jupiter MT anomaly: Follow-up MT survey during 2021 to define major fault zone and initial high risk, high reward drilling target.

#### Corporate

- Corporate overheads have been greatly reduced, but significant fixed costs such as share registry and ASX listing fees remain.
- Substantial costs to maintain Havilah's 16,000 km<sup>2</sup> tenement area (>\$500,000 per annum).

### Funds raised will be prudently invested to generate positive shareholder returns



### **Matching with longer term objectives**

#### Large scale Kalkaroo copper-gold-cobalt project development

- Havilah retains a high degree of optionality as the large scale Kalkaroo copper-gold sulphide production could potentially be ramped up at any time if the required capital became available (A\$332 million start up capex).
- Investment partner or buyout might be possible in a favourable copper market.
- Potential unquantified by-product REE, cobalt and/or moly sales could generate additional revenue.

#### Mutooroo copper-cobalt-gold project

- PFS leading ultimately to a mining investment decision.
- Mining hub concept drawing in many potential local ore sources from the surrounding Mutooroo Copper-Cobalt District.

#### Iron ore assets

- An initial low-cost mining development seeking to utilise the Port Playford transshipment facility and existing rail capacity.
- Progressively increase production capability from vast iron ore resources in the region.
- Pelletisation is a future value adding possibility.
- Requires low water usage and likely locally generated renewable energy from abundant sunlight and wind.

#### **Regional exploration**

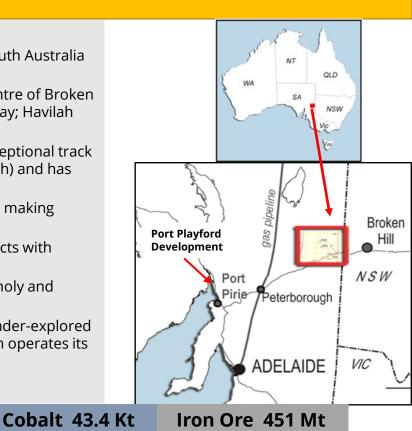
- Apply extensive local geological knowledge to make new value adding discoveries in a variety of geological settings.
- Taking advantage of a large highly prospective tenement holding (>16,000 km<sup>2</sup>) and an excellent track record of exploration success.

### Maximising the value from Havilah's multi-commodity minerals portfolio



### Havilah is a high quality resource stock

- ✓ Low sovereign risk jurisdiction with a mining friendly government in South Australia that actively encourages mineral development.
- ✓ **Favourable logistics and infrastructure** close to the regional mining centre of Broken Hill with its skilled workforce and the main east-west railway line and highway; Havilah owns the 550 km<sup>2</sup> Kalkaroo Station pastoral lease.
- ✓ **Experienced technical team** Havilah's current technical team has an exceptional track record of exploration success (including 8 JORC Mineral Resources at Havilah) and has developed and operated the Portia gold mine.
- ✓ Clear strategic direction and leadership experienced Board focused on making sensible strategic and financially responsible decisions.
- ✓ **High quality mineral projects** Havilah has three advanced mineral projects with substantial JORC Mineral Resources (refer to JORC table at end).
- ✓ **Conflict-free, strategic and critical minerals** including copper, cobalt, moly and potentially REE.
- $\checkmark$  **Exploration upside** >16,000 km<sup>2</sup> of some of the most prospective and under-explored exploration terrain in Australia for copper, gold, cobalt and iron ore. Havilah operates its own drilling crew, a key to its successful exploration history.





**JORC Resources:** 

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Gold 3.2 Moz

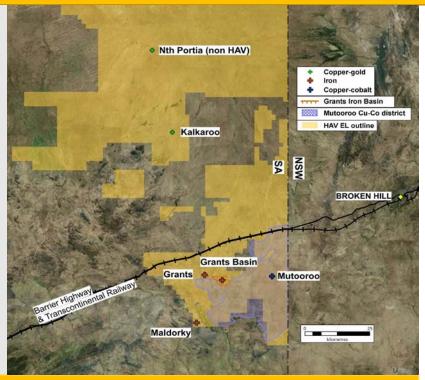
### **Advanced mineral projects summary**

#### Copper – Gold – Cobalt – (REE)

- Kalkaroo: Positive independent prefeasibility study (PFS)\* confirms Kalkaroo as one of the largest undeveloped open pit copper deposits in Australia based on 100 Mt Ore Reserve (contains 474,000 tonnes copper & 1.4 million ounces gold, 90% Proved) at a CuEq grade of 0.89%. Potential for by-product cobalt, moly and REE concentrate production (refer to havilah-resources-projects.com/kalkaroo).
- **Mutooroo:** Comparatively high grade open pit and underground copper deposit (1.53% Cu) with appreciable cobalt. One of the highest grade sulphide cobalt deposits (0.16%) with associated copper in Australia (refer to <u>havilah-resources-projects.com/mutooroo</u>).
- High exploration upside for expansion of both resources.

#### Iron ore

- **<u>Grants & Maldorky</u>**: combined JORC resources of 451 Mt in proximity to railway line; amenable to efficient upgrading to 65% Fe product.
- **Grants Basin:** <u>Exploration Target\*</u> 3.5-3.8 billion tonnes 24-28% Fe in only 25% of the iron ore basin, also potentially upgradable.



### A multi-commodity minerals portfolio accumulated over 17 years



Resources

\*The potential quantity and grade of the <u>Exploration Target</u> is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

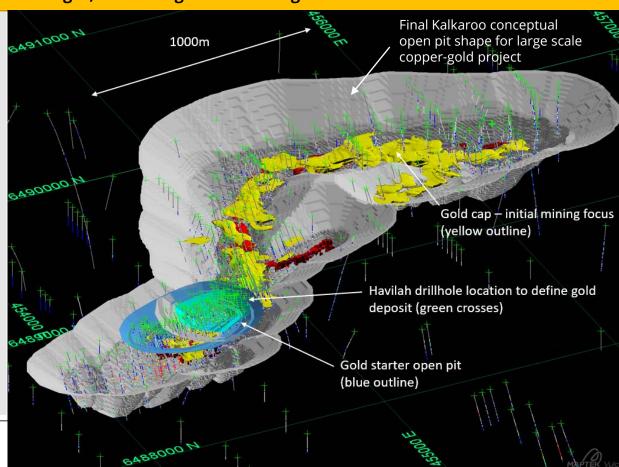
### Initial gold starter open pit at West Kalkaroo

Kalkaroo is a large gold deposit in its own right, containing over 3.1 Moz gold

- ✓ Initial development plan is to commence a lower capital gold starter open pit (blue), with approximately 80,000-90,000 ounces of gold production over 3 years (refer to ASX announcement 29 July 2020).
- This would mine the shallowest and lowest cost gold ore via an open pit mine and a cyanide leaching gold recovery processing plant.
- ✓ It is a lower capital and lower risk start up alternative that takes advantage of the current high gold price.
- This is only a small part of the deposit and could be followed by the much larger long term copper-gold development as shown by the grey open pit outline.

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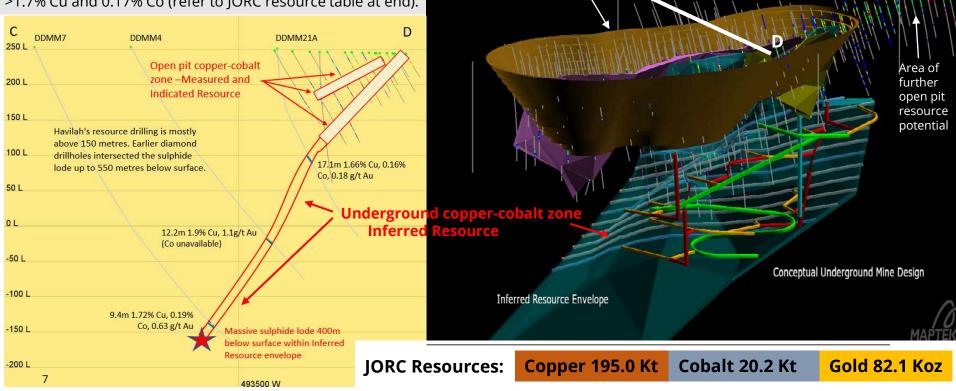


### **Mutooroo: Potential high grade open pit copper mine**

One of the highest grade sulphide cobalt deposits with associated copper in Australia

Conceptual open pit to 130m depth

Concept is for an initial shallow open pit exploiting >1.3% Cu and 0.14% Co Measured and Indicated resources followed by underground mining of higher grade Inferred resources >1.7% Cu and 0.17% Co (refer to JORC resource table at end).

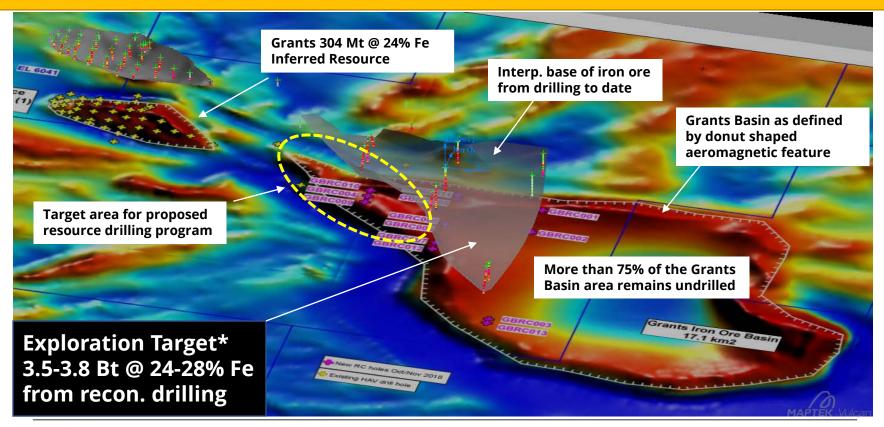


### **Grants iron ore: Favourable logistics, yield and recovery**

- Lies 8 km south of the Trans-Continental railway line.
- One hour drive from the major regional mining centre of Broken Hill along the main Highway.
- Power grid 30km away with excess renewable power (wind turbine and solar) available at Broken Hill.
- Testwork shows that the similar Maldorky iron ore can be <u>upgraded to a high quality</u> 65% iron product for a 40% product yield and 85% iron recovery.



### **Grants Basin iron ore: a Pilbara scale Exploration Target\***



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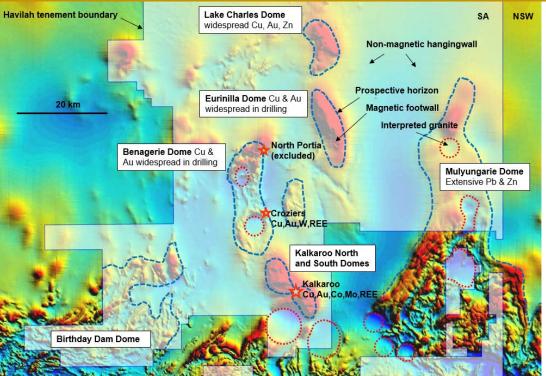
### Iron ore transportation and port logistics solutions

- MOU signed with Port Augusta Operations who is constructing the new Port Playford iron ore transhipment facility.
- "Port Playford will offer a strategically located, low capital and near-term export facility....and will offer storage, port and transhipment services for iron ore" from Port Playford website <u>https://www.portplayford.com</u>
- Direct rail link from within a few km of Grants and Grants Basin iron ore deposits to Port Playford (see slide 4).



### **Regional exploration: Curnamona copper belt**

- <u>Kalkaroo style mineralisation</u> in a
  200 km long, prospective horizon (blue dashed line).
- Several well mineralised major structural domes (e.g. Kalkaroo, Benagerie, Eurinilla, Lake Charles).
- Strong geological analogies to the prolific Zambian Copper Belt.
- Shallow drilling has identified widespread copper-gold mineralisation and some outstanding drilling targets.
- >16,000 km<sup>2</sup> highly prospective 100% owned tenement holding.

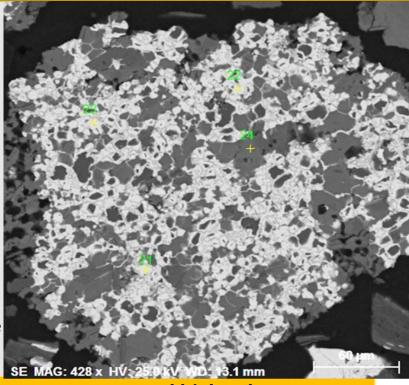


Exploring for Zambian Copper Belt style stratabound replacement copper mineralisation



### **Curnamona copper belt as a potential future source of REE**

- REE are critical minerals that are used as a vital components of a wide range of green energy and other applications (e.g. wind turbines, electric vehicles, rechargeable batteries, hand phones), whose supply is dominated by China (refer to <u>Critical Minerals Prospectus 2020</u>).
- Widespread elevated levels of the higher value REE are associated with copper-gold-cobalt mineralisation in the Curnamona copper belt.
- Research collaboration with the University of South Australia has identified a <u>high value REE mineral</u> (bastnasite - a carbonate-fluoride mineral) in the West Kalkaroo oxidised gold ore.
- The main research objective is to determine if this REE mineral can be economically recovered in a mineral concentrate as a by-product of the copper and gold recovery process and so provide an additional valuable revenue stream for the Kalkaroo gold starter open pit and assist in meeting the western world's REE self-sufficiency.
- The scanning electron microscope image on the right shows basnasite (white) intergrown with clay minerals (grey) in a gold ore sample from West Kalkaroo, which shows good promise for economic recovery.



The mineralising processes in the Curnamona Craton concentrated high value REE

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### JORC Ore Reserve & Mineral Resources

#### JORC Mineral Resources as at 31 July 2020

Project	Classifica tion	Tonnes (Mt)	Copper %	Gold g/t	Copper tonnes (Kt)	Gold ounces (Koz)
Kalkaroo <sup>1</sup>	Proved	90.2	0.48	0.44	430	1,282
Kalkaroo.	Probable	9.9	0.45	0.39	44	125
Total		100.1	0.47	0.44	474	1,407

#### Footnotes to the JORC Ore Reserve and Mineral Resource Tables

Numbers in tables are rounded

- <sup>1</sup> Details released to ASX: <u>18 June 2018 (Kalkaroo)</u>
- <sup>2</sup> Details released to ASX: <u>18 October 2010</u> and <u>5 June 2020</u> (Mutooroo)
- <sup>3</sup> Details released to ASX <u>30 January 2018 & 7 March 2018 (Kalkaroo)</u>
- <sup>4</sup> Note that the Kalkaroo cobalt Inferred resource is not added to the total tonnage
- <sup>5</sup> Details released to ASX: <u>10 June 2011</u> applying an 18% Fe cut-off (Maldorky)
- <sup>6</sup> Details released to ASX: <u>5 December 2012</u> applying an 18% Fe cut-off (Grants)
- <sup>7</sup> Details released to the ASX: <u>4 June 2009</u> using a grade-thickness cut-off of 0.015 metre % eU3O8 (Oban)

Project	Classification	Resource Category	Tonnes	Copper %	Cobalt %	Gold g/t	Copper tonnes	Cobalt tonnes	Gold ounces		
	Measured	Oxide	598,000	0.56	0.04	0.08					
	Total	Oxide	598,000	0.56	0.04	0.08	3,300	200	1,500		
	Measured	Sulphide Copper- Cobalt-Gold Sulphide	4,149,000	1.23	0.14	0.18					
Mutooroo	Indicated	Copper- Cobalt-Gold Sulphide	1,697,000	1.52	0.14	0.35					
	Inferred	Copper- Cobalt-Gold	6,683,000	1.71	0.17	0.17					
	Total	Sulphide Copper- Cobalt-Gold	12,529,000	1.53	0.16	0.20	191,700	20,000	80,600		
		Total Mutooroo	13,127,000				195,000	20,200	82,100		
	Measured	Oxide Gold Cap	12,000,000			0.82					
	Indicated	Oxide Gold Cap	6,970,000			0.62					
	Inferred	Oxide Gold Cap	2,710,000			0.68					
	Total	Oxide Gold Cap	21,680,000			0.74			514,500		
Kalkaroo	Measured	Sulphide Copper-Gold	85,600,000	0.57		0.42					
5	Indicated	Sulphide Copper-Gold	27,900,000	0.49		0.36					
	Inferred	Sulphide Copper-Gold	110,300,000	0.43		0.32					
	Total	Sulphide Copper-Gold	223,800,000	0.49		0.36	1,096,600		2,590,300		
		Total Kalkaroo	245,480,000				1,096,600		3,104,800		
	Inferred	Cobalt Sulphide <sup>4</sup>	193,000,000		0.012			23,200			
Total All Projects		All Categories (rounded)	258,607,000				1,291,600	43,400	3,186,900		
Project	Classification		Tonnes (Mt)		iron (%)	Fe	concentrate (Mt)		Estimated vield		
Maldorky	Indicated		147		30.1		59		40%		
Grants 6	Inferred		304		24		100		33%		
Total all projects	All categories	s 451 159									
Project	Classification		Tonnes	eU3	O8 (ppm)	d eU3O8 (	Tonnes)				
Oban 7	Inferred		(Mt) 8		260		2,100				



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### **Additional information**

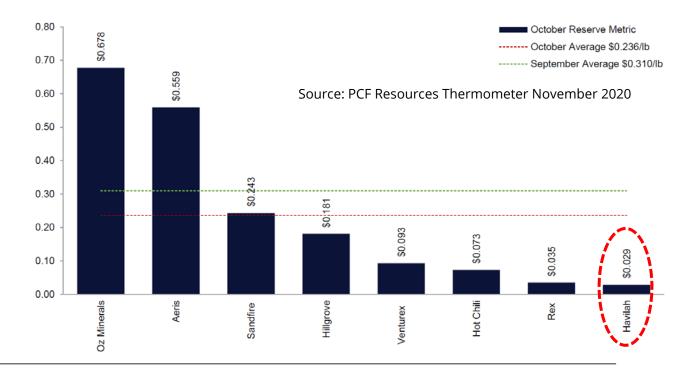
- 1. ASX copper peer comparisons
- 2. ASX gold peer comparisons
- 3. Kalkaroo project updated valuation (29 July 2020)



### High leverage to copper based on CuEq Ore Reserves

#### ASX EV / Reserve (A\$/lb CuEq)

Amongst its ASX peers shown here, Havilah has the highest leverage to copper, based on its Enterprise Value / CuEq Ore Reserves



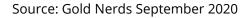


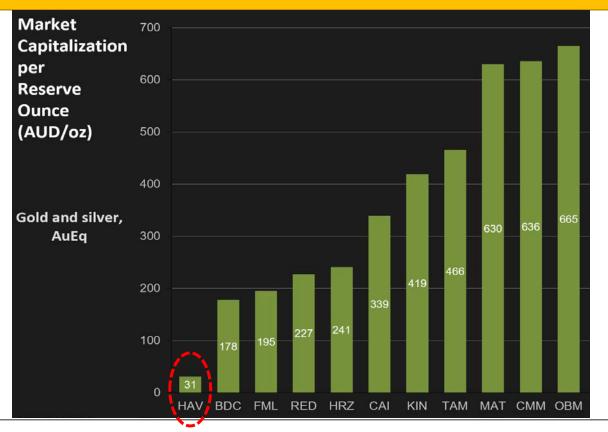
### High leverage to gold based on gold ore reserves

Amongst its ASX peers shown here, Havilah has the highest leverage to gold, based on its Market Capitalisation / Gold Ore Reserves

**Comparison criteria are:** 1. Only ASX listed explorers and developers with predominantly gold ore reserves in excess of 100,000 ounces. None of the companies are significant gold producers although some are in the construction phase.

2. Gold ore reserves are all located in Australia. This is to ensure comparisons are like for like on a sovereign risk basis.





### Kalkaroo project updated valuation

	Gold price USD\$/oz and AUD\$/oz (at AUD:USD exchange rate of 0.75)														
q	USD		\$1,000	\$1,100	\$1,200	\$1,300	\$1,400	\$1,500	\$1,600	\$1,700	\$1,800	\$1,900	\$2,000	\$2,100	\$2,200
AUD\$/lb		AUD	\$1,333	\$1,467	\$1,600	\$1,733	\$1,867	\$2,000	\$2,133	\$2,267	\$2,400	\$2,533	\$2,667	\$2,800	\$2,933
AUI	2.50	3.33	\$171	\$239	\$308	\$376	\$445	\$514	\$582	\$651	\$719	\$788	\$857	\$925	\$994
<u>~୪</u>	2.70	3.60	\$301	\$369	\$438	\$506	\$575	\$643	\$712	\$781	\$849	\$918	\$986	\$1055	\$1124
USD\$/Ib	2.89	3.85	\$427	\$496	\$564*	\$633	\$701	\$770*	\$839	\$907	\$976	\$1044*	\$1113	\$1182	\$1250
JSL	3.10	4.13	\$560	\$629	\$698	\$766	\$835	\$903	\$972	\$1040	\$1109	\$1178	\$1246	\$1315	\$1383
	3.30	4.40	\$690	\$759	\$827	\$896	\$965	\$1033	\$1102	\$1170	\$1239	\$1308	\$1376	\$1445	\$1513
' price	3.50	4.67	\$820	\$889	\$957	\$1026	\$1094	\$1163	\$1232	\$1300	\$1369	\$1437	\$1506	\$1575	\$1643
Iedo	3.70	4.93	\$950	\$1019	\$1087	\$1156	\$1224	\$1293	\$1362	\$1430	\$1499	\$1567	\$1636	\$1705	\$1773
Copper	3.90	5.20	\$1080	\$1149	\$1217	\$1286	\$1354	\$1423	\$1491	\$1560	\$1629	\$1697	\$1766	\$1834	\$1903
	4.10	5.47	\$1210	\$1278	\$1347	\$1416	\$1484	\$1553	\$1621	\$1690	\$1759	\$1827	\$1896	\$1964	\$2033

\* <u>Pre-tax NPV<sub>7.5%</sub> from PFS (green)</u> compared with that at recent long-term forecast (orange) and spot gold price (yellow), as calculated by the PFS financial model. Note that the orange highlighted long term gold price, pre-tax NPV<sub>7.5%</sub> (\$770 million) in the table is conservative for Kalkaroo as no account has been taken of:

- 1. Improved gold recoveries in the oxidised ore types from 50% in the PFS to >90% based on recent metallurgical test work (refer to ASX announcement of 9 May 2019).
- 2. Potential revenue contribution from other by-product commodities such as cobalt, rare earth elements and molybdenum due to incomplete metallurgical test work.
- 3. Open pit optimisations have not been re-run for higher long-term forecast gold prices. On the basis that lower grades of ore can be profitably treated if metal prices are higher, it is reasonable to assume (based on constant cost inputs) that re-optimisation would result in a larger open pit and hence improved mining economics and a longer mine life. For the present exercise the published PFS open pit optimisation and RPM financial model have been used.
- 4. The above pre-tax NPV<sub>7.5%</sub> value matrix exchange rate was set at an earlier long-term forecast AUD:USD 0.75 rate, whereas over the past 12 months the AUD:USD exchange rate has been consistently below this level.

### **Cautionary and Competent Person's Statements**

#### **Cautionary Statement**

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Given the ongoing uncertainty relating to the duration and extent of the global COVID-19 pandemic, and the impact it may have on the demand and price for commodities on our suppliers and workforce, and on global financial markets, the Company continues to face uncertainties that may impact its operating and financing activities.

#### **Competent Person's Statement**

The information in this presentation that relates to Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves is based on data compiled by geologist, Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, a full-time employee and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit and activities described herein to qualify as a Competent Person as defined in the 2012 Edition of *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'*. Dr Giles consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Information for the Kalkaroo Ore Reserve & Mineral Resource and the Mutooroo Inferred cobalt & gold Mineral Resources complies with the JORC Code 2012. All other information was prepared and first disclosed under the JORC Code 2004 and is presented on the basis that the information has not materially changed since it was last reported. Havilah confirms that all material assumptions and technical parameters underpinning the reserves and resources continue to apply and have not materially changed. Except where explicitly stated, this presentation contains references to prior exploration results and JORC Mineral Resources, all of which have been cross-referenced to previous ASX announcements made by Havilah. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant ASX announcements.



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