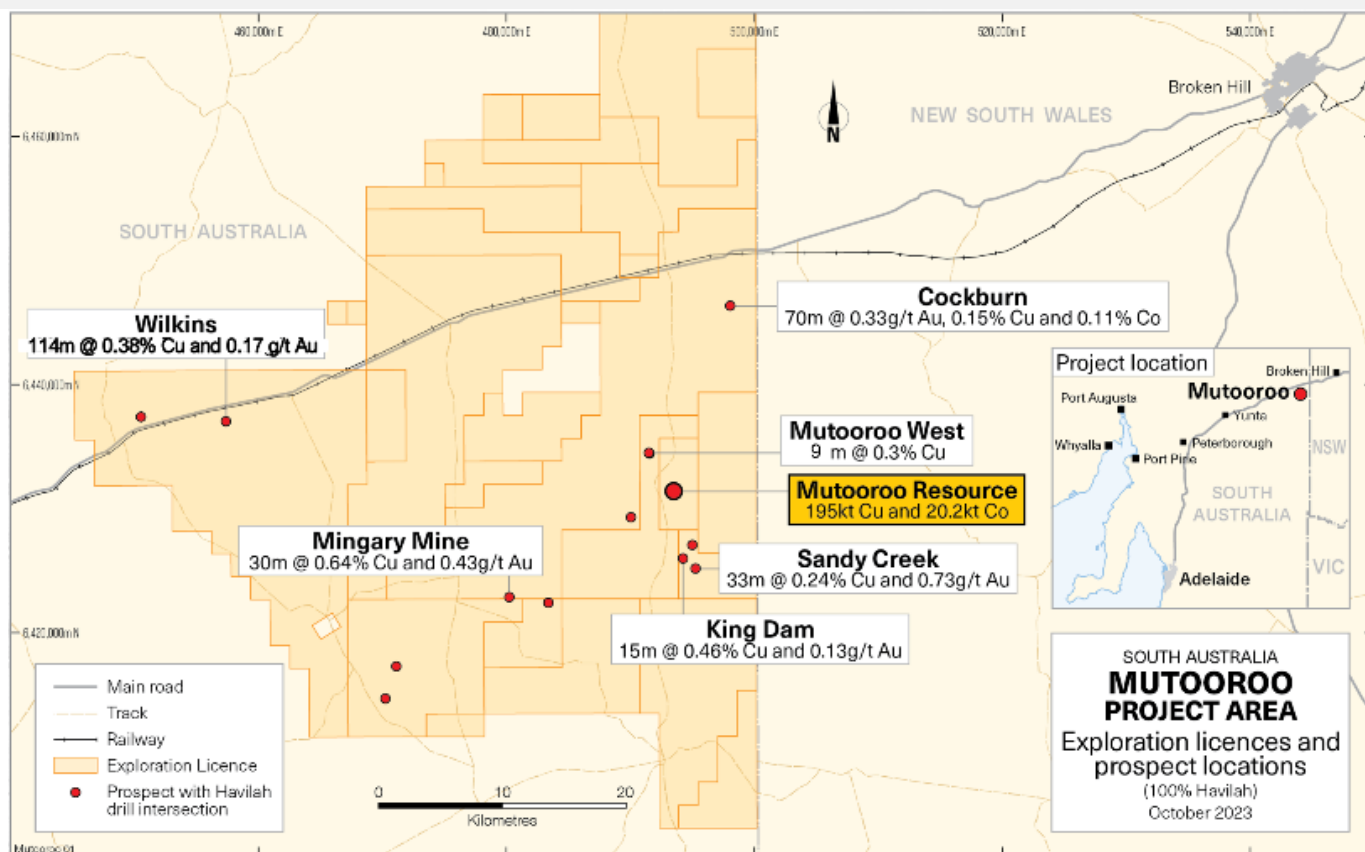


17 February 2025

## MUTOOROO COPPER-COBALT-GOLD PROJECT STUDY PROGRAM UPDATE

### HIGHLIGHTS

- JX Advanced Metals Corporation (JXAM) – Havilah drilling program completed for 7,511 metres, with a metallurgical testing program and mining studies in progress.
- **10 metres of 1.59% copper, 0.14% cobalt and 0.29 g/t gold from 151 metres** intersected in drillhole MTRCD283 located approximately 250 metres north of the existing Mutooroo JORC Measured Resource envelope, highlighting the resource expansion potential.
- Drillhole intersections within the existing resource envelope intersected grades and widths of sulphide mineralisation that are generally confirmatory of the current resource.



**Figure 1** Location of the Mutooroo copper-cobalt-gold project within the prospective Mutooroo Project Area. For the source of the mineralised intersections refer to ASX releases listed on page 5.

**Commenting on the current Mutooroo drilling results Havilah’s Technical Director, Dr Chris Giles, said:**

*“The drilling program at Mutooroo in cooperation with JXAM continues to fulfil its planned objectives of obtaining representative metallurgical drillcore samples and potentially extending and confirming the existing resource. We are most grateful for the funding and technical support provided by JXAM for this work.*

*“The data from this drilling program helps improve the current deposit model and will support the completion of an updated mineral resources estimation.*

*“The substantial resource upside potential at the previously undrilled northern end of the deposit continues to be supported by the new drilling results reported here.”*

Havilah Resources Limited (**Havilah** or the **Company**) (**ASX: HAV**) is pleased to update progress at the Mutooroo copper-cobalt-gold project (**Mutooroo**), 60 km southwest of Broken Hill, following signing of the binding MOU with JXAM ([refer to ASX announcement of 19 August 2024](#)). At the end of 2024, a drilling program comprising 35 drillholes for a total of 7,511 metres was completed with a combination of Havilah's RC drilling rig and contractor RC and diamond drilling rigs.

Drilling intersections\* lying to the north and outside the existing Mutooroo JORC resource include:

**MTRCD283:** 10 metres of 1.59% copper, 0.14% cobalt and 0.29 g/t gold from 151 metres

**MTRCD284:** 8 metres of 1.26% copper, 0.13% cobalt and 0.26 g/t gold from 174.7 metres; and  
2.65 metres of 2.46% copper, 0.11% cobalt and 0.32 g/t gold from 188 metres; and  
3.85 metres of 1.97% copper, 0.20% cobalt and 0.28 g/t gold from 194.2 metres

**MTRCD285:** 7.2 metres of 1.53% copper, 0.14% cobalt and 0.43 g/t gold from 228.3 metres

**MTRCD277:** 4 metres of 1.55% copper, 0.08% cobalt and 0.28 g/t gold from 147 metres

**MTRCD281:** 3 metres of 1.30% copper, 0.12% cobalt and 0.36 g/t gold from 141 metres

**MTRCD282:** 5 metres of 0.97% copper, 0.12% cobalt and 1.35 g/t gold from 175 metres

**MTRCD280:** 2 metres of 2.29% copper, 0.042% cobalt and 0.95 g/t gold from 179 metres; and  
5.8 metres of 1.14% copper, 0.13% cobalt and 0.30 g/t gold from 189.7 metres.

These drilling intersections combined with earlier reported intersections ([refer to ASX announcement of 27 November 2024](#)) including:

**MTRC278:** 21 metres of 1.60% copper, 0.18% cobalt and 0.31 g/t gold from 122 metres; and

**MTRC260:** 12 metres of 1.57% copper, 0.16% cobalt and 0.39 g/t gold from 104 metres,  
continue to confirm significant northward extensions of the Mutooroo massive sulphide mineralisation and will be incorporated into an updated resource model by Havilah upon receipt and evaluation of all drilling results.

Drilling intersections lying within the existing Mutooroo JORC resource include:

**MTRCD272:** 6.2 metres of 1.48% copper, 0.13% cobalt and 0.09 g/t gold from 111.8 metres; and  
7 metres of 1.86% copper, 0.16% cobalt and 0.33 g/t gold from 173.5 metres;

**MTRCD274:** 6.1 metres of 2.0% copper, 0.21% cobalt and 0.19 g/t gold from 295.9 metres; and  
4.45 metres of 1.69% copper, 0.16% cobalt and 0.17 g/t gold from 305 metres;

**MTRCD275:** 6.6 metres of 1.66% copper, 0.12% cobalt and 0.16 g/t gold from 233.5 metres

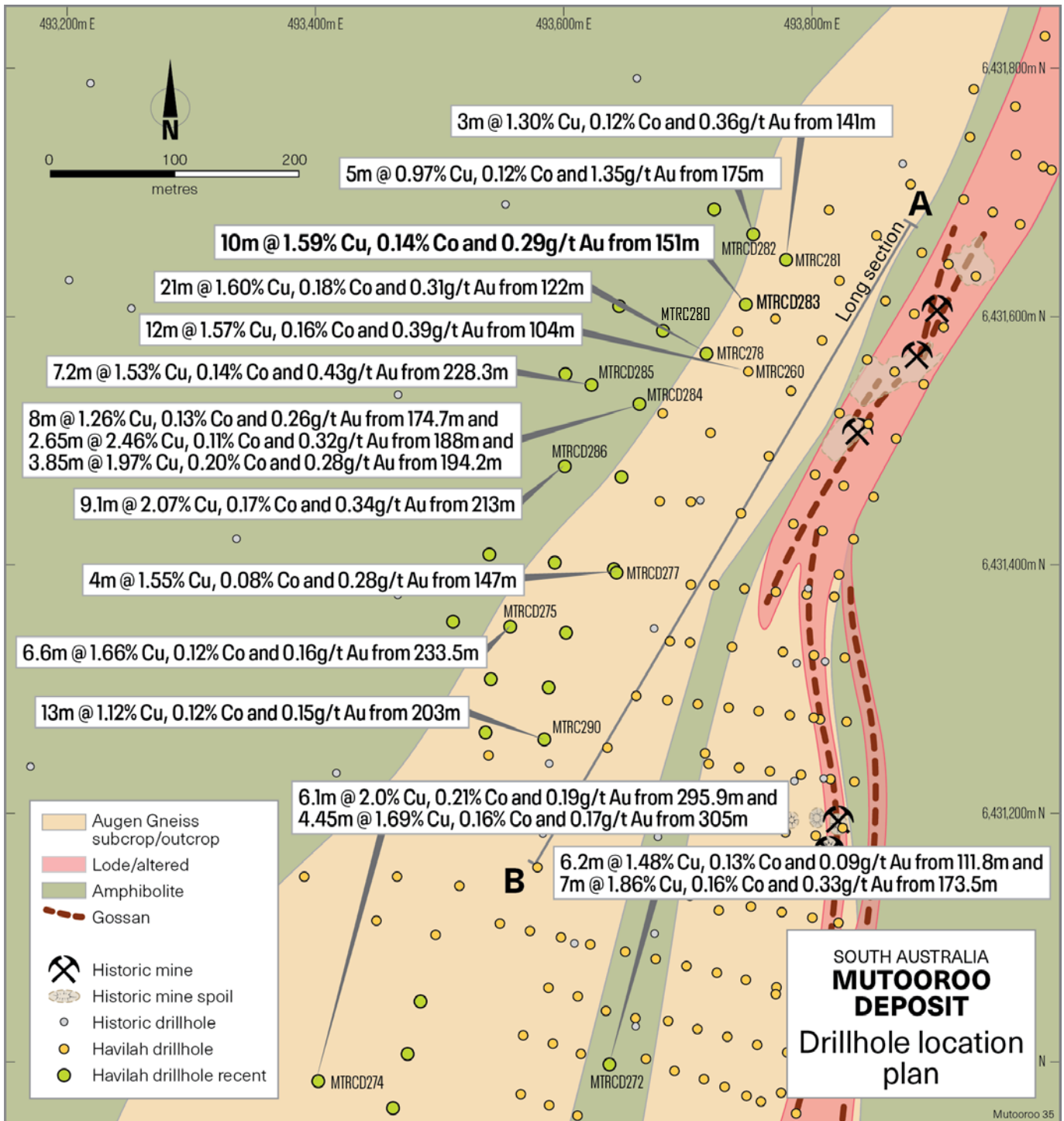
**MTRCD286:** 9.1 metres of 2.07% copper, 0.17% cobalt and 0.34 g/t gold from 213 metres

**MTRC290:** 13 metres of 1.12% copper, 0.12% cobalt and 0.15 g/t gold from 203 metres.

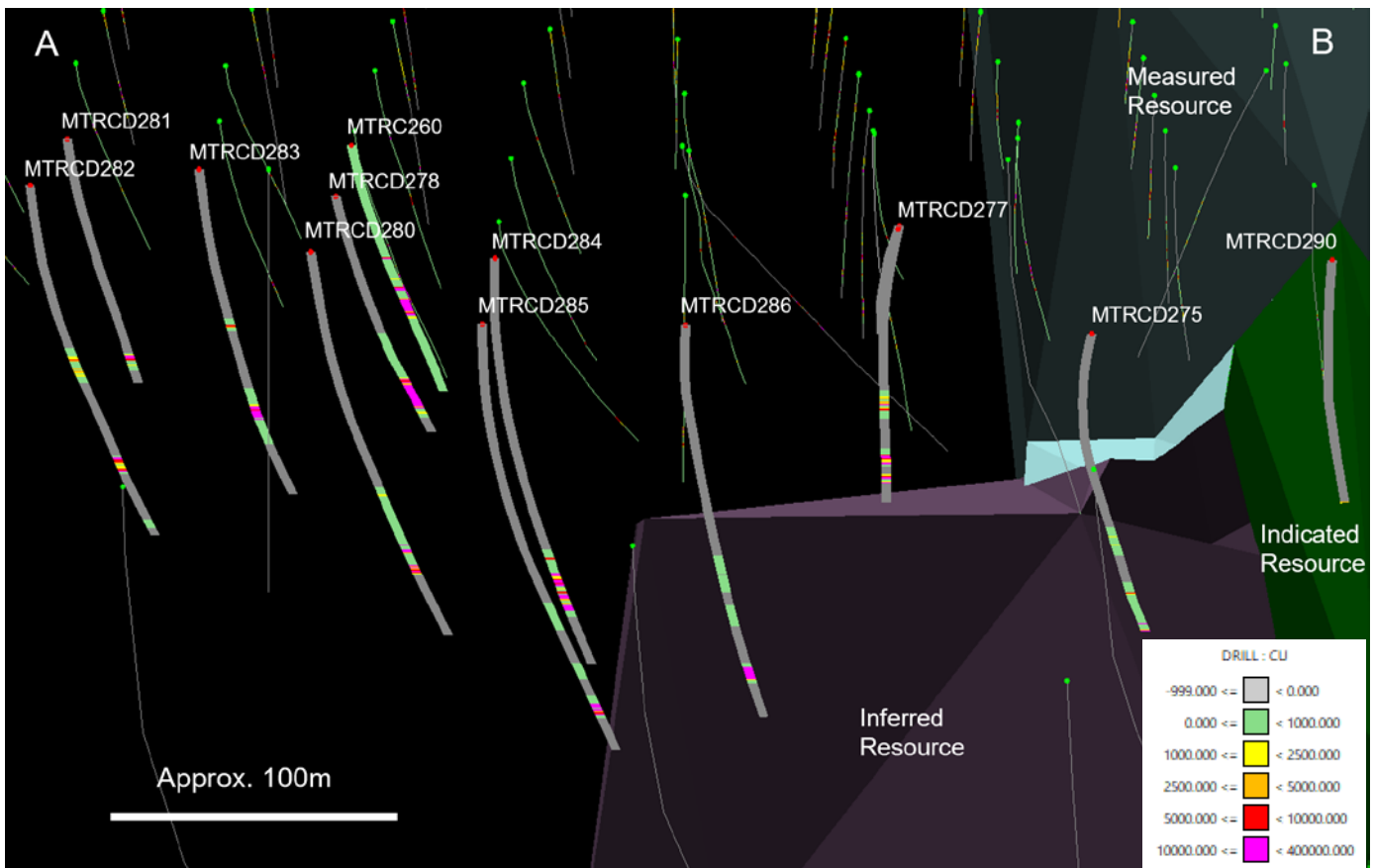
Drillholes MTRCD274, MTRCD275 and MTRCD286 are located within the currently defined Inferred Resource, while drillhole MTRC290 is within the Indicated Resource and drillhole MTRCD272 is within the Measured Resource.

Overall, the copper and cobalt intercept grades are generally comparable to the average Mutooroo JORC sulphide resource grade of 1.53% copper and 0.16% cobalt and over potentially mineable widths. The reported gold grades are mostly significantly higher than the resource grade of 0.20 g/t for the northern drillholes, which provides a potentially material economic benefit given the current high gold price.

**\*Applicable to all drillholes:** significant intervals reported above contain no individual 2 metre assays < 0.10% for copper, <0.02% for cobalt and <0.02 g/t for gold. No upper limit has been applied, noting that there are no exceptionally high assays for any elements that would justify a top cut in this case. Given the angle of intersection of the drillholes with the westerly dipping sulphide mineralisation, the thickness of the reported intervals is interpreted to approximate true width.



**Figure 2** Surface geological plan of the area drilled showing Havilah drillholes in relation to the historical Mutooroo mine workings and locations of mapped sulphide lodes, generally marked by outcropping gossans. The orientation of the long section A-B (Figure 3) is shown.



**Figure 3** Long section A-B of the Mutooroo sulphide lode zone and defined resource envelopes in relation to recent drillholes reported here.

No further drilling at Mutooroo is planned until all drilling results are received and evaluated. Downhole electromagnetic surveying is currently planned for selected drillholes to identify any off-hole conductive zones that could be indicative of undrilled massive sulphide.

JXAM’s metallurgical testing program is underway at CORE Resources metallurgy laboratory in Brisbane and mining studies are being progressed by a Melbourne-based consulting group.

Havilah and JXAM are discussing the final form of an agreement between them, subject to the outcome of the present Mutooroo study results. The objective is for JXAM to fund a mining feasibility study on Mutooroo that will inform a decision on whether to purchase an equity interest in the Mutooroo project from Havilah.

### About Mutooroo

Mutooroo is Havilah’s advanced stage copper-cobalt-gold project that is located within commuting distance of Broken Hill, and 16 km south of the Transcontinental railway line and Barrier Highway. It contains **195,000 tonnes of copper, 20,200 tonnes of cobalt and 82,100 ounces of gold** mostly in copper-cobalt rich massive sulphide lodes (see JORC Mineral Resource table below for classifications and grades).

Expanding the Mutooroo resource base is a priority for Havilah as a larger resource and an increased scale strengthens the economic development case and the attractiveness of the project. Our resource expansion strategy with JXAM is focused on adding more near-surface resources that could potentially be mined by open pit methods because this could be a major driver of value in the early operational years. Any revenues from byproduct cobalt, gold and sulphur could improve returns from the Mutooroo project and this will also be a key focus of the JXAM study program.

In accordance with the MOU terms, JXAM is meeting substantial costs associated with the Mutooroo study program, including the RC precollar and diamond drilling, metallurgical test work and mining studies.

**Cockburn prospect:** ([refer to ASX announcement 17 October 2023](#))

**Mutooroo West prospect:** ([refer to ASX announcement 29 November 2021](#))

**Mingary Mine prospect:** ([refer to ASX announcement 5 July 2023](#))

**King Dam – Sandy Creek prospects:** ([refer to ASX announcement 5 July 2023](#))

**Wilkins prospect:** ([refer to ASX announcement 10 August 2012](#))

This release has been authorised on behalf of the Havilah Resources Limited Board by Mr Simon Gray.

For further information visit [www.havilah-resources.com.au](http://www.havilah-resources.com.au)

Contact: Dr Chris Giles, Technical Director, on (08) 7111 3627 or email [info@havilah-resources.com.au](mailto:info@havilah-resources.com.au)

Registered Office: 107 Rundle Street, Kent Town, South Australia 5067

Mail: PO Box 3, Fullarton, South Australia 5063

#### Mutooroo JORC Mineral Resource Table as at 31 July 2024

Project	Classification	Resource Category	Tonnes	Copper %	Cobalt %	Gold g/t	Copper tonnes	Cobalt tonnes	Gold ounces
Mutooroo <sup>1</sup>	Measured	Oxide	598,000	0.56	0.04	0.08			
	<b>Total</b>	<b>Oxide</b>	<b>598,000</b>	<b>0.56</b>	<b>0.04</b>	<b>0.08</b>	<b>3,300</b>	<b>200</b>	<b>1,500</b>
	Measured	Sulphide Copper-Cobalt-Gold	4,149,000	1.23	0.14	0.18			
	Indicated	Sulphide Copper-Cobalt-Gold	1,697,000	1.52	0.14	0.35			
	Inferred	Sulphide Copper-Cobalt-Gold	6,683,000	1.71	0.17	0.17			
	<b>Total</b>	<b>Sulphide Copper-Cobalt-Gold</b>	<b>12,529,000</b>	<b>1.53</b>	<b>0.16</b>	<b>0.20</b>	<b>191,700</b>	<b>20,000</b>	<b>80,600</b>
		<b>Total Mutooroo</b>	<b>13,127,000</b>				<b>195,000</b>	<b>20,200</b>	<b>82,100</b>

Numbers in above table are rounded. <sup>1</sup> Details released to the ASX: 18 October 2010 and 5 June 2020.

### Cautionary Statement

This announcement contains certain statements which may constitute 'forward-looking statements'. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, performance or achievements to differ materially from those expressed, implied, or projected in any forward-looking statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

### Competent Person's Statements

The information in this announcement that relates to Exploration Results and JORC Mineral Resources is based on data and information 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 under consideration and to the activities being undertaken 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 announcement of the matters based on his information in the form and context in which it appears. Information for the Mutooroo Inferred cobalt & gold Mineral Resources complies with the JORC Code 2012. All other Mutooroo Mineral Resource 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 resources continue to apply and have not materially changed. 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.

## Appendix 1

Sections 1 and 2 below provide a description of the sampling and assaying techniques in accordance with Table 1 of The Australasian Code for Reporting of Exploration Results.

### Details for drillholes cited in the text

Hole Number	Easting m	Northing m	RL m	Grid azimuth	Dip degrees	EOH depth metres
MTRC260	493748	6431556	247	120	-60	171
MTRCD272	493637	6430998	248	112	-64	198.8
MTRCD274	493403	6430984	253	113	-58	330.8
MTRCD275	493557	6431350	250	91	-60	282.8
MTRCD277	493643	6431394	250	89	-60	225.5
MTRC278	493716	6431570	251	120	-59	160
MTRCD280	493680	6431589	249	120	-64	240.5
MTRC281	493780	6431646	245	119	-64	160
MTRCD282	493753	6431666	246	116	-65	234.8
MTRCD283	493747	6431609	246	117	-64	216.8
MTRCD284	493662	6431530	248	104	-65	231.8
MTRCD285	493623	6431545	247	106	-65	258.8
MTRCD286	493601	6431480	249	103	-65	264.8
MTRC290	493585	6431259	249	94	-65	240

**Datum:** GDA94 Zone 54.

**Note:** All azimuths and dips are as measured at surface; deviations from this typically occur at depth.

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<p><b>Sampling techniques</b></p>	<ul style="list-style-type: none"> <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. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Sample data was derived from Havilah reverse circulation (RC) and diamond (DD) drillholes as documented in the table above.</li> <li>RC assay samples averaging 2-3kg were riffle split at 1 metre intervals.</li> <li>All RC drill samples were collected into pre-numbered calico bags and packed into polyweave bags by Havilah staff for shipment to the assay lab in Adelaide.</li> <li>Some samples that did not appear to be obviously mineralised were composited over 4 metre intervals. These were later resampled on 1 metre intervals if the 4 metre composite assay results were considered to be significant.</li> <li>All diamond drill samples were from HQ size drillcore that was logged on site and was sent to Adelaide to be photographed, and halved and/or quartered by diamond saw.</li> <li>Quartered drillcore samples were collected into pre-numbered calico bags and sent to the ALS assay lab in Adelaide.</li> <li>At the assay lab the samples are crushed in a jaw crusher to a nominal 10mm (method PR102) from which a 3kg split is obtained using a riffle splitter. The split is pulverized in an LM5 to minimum 85% passing 75 microns (method PR303). These pulps are stored in paper bags.</li> <li>All samples were analysed for gold by 30g fire assay, with AAS finish using ALS method Au-aa25 and a range of other metals by ALS method MEMS 61.</li> <li>Half core sample was sent to CORE Resources metallurgical laboratory in Brisbane.</li> </ul>
<p><b>Drilling techniques</b></p>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>All RC holes and RC precollar holes were drilled with a face sampling hammer bit using Havilah's RC drilling rig and a contractor RC drilling rig for a few holes. All samples were collected via riffle splitting directly from the cyclone.</li> <li>Diamond drilling of HQ size (63.5 mm), usually as tails to RC precollar holes.</li> <li>MJ Drilling was contracted for the diamond drillholes.</li> </ul>
<p><b>Drill sample recovery</b></p>	<ul style="list-style-type: none"> <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 sample bias may have occurred due to preferential loss/gain of</li> </ul>	<ul style="list-style-type: none"> <li>The sample yield and quality of the RC samples was routinely recorded in drill logs.</li> <li>The site geologist and Competent Person consider that overall the results are acceptable for interpretation purposes.</li> <li>No evidence of significant sample bias due to preferential concentration or depletion of fine</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>fine/coarse material.</i></p>	<p>or coarse material was observed.</p> <ul style="list-style-type: none"> <li>No evidence of significant down hole or inter-sample contamination was observed.</li> <li>Sample recoveries for both diamond drilling and RC drilling were continuously monitored by the geologist on site in order to effect adjustments to drilling methodology to optimize sample recovery and quality if necessary.</li> <li>In general, core recoveries were excellent, with almost 100% recovery in the mineralised intervals. The sample yield and quality of the diamond drilling samples was routinely recorded in drill logs.</li> <li>The site geologist and Competent Person consider that overall the results are acceptable for interpretation purposes.</li> </ul>
<p><b>Logging</b></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>All RC samples were logged by an experienced exploration geologist directly into an Excel spreadsheet and transferred to a laptop computer.</li> <li>All RC chip sample trays and some representative samples are stored on site.</li> <li>The drillcore was logged in detail by an experienced geologist directly into a digital logging system with data uploaded directly into an Excel spreadsheet.</li> <li>Logging is semi-quantitative and 100% of reported intersections have been logged and photographed.</li> <li>Logging is of a sufficiently high standard to support any subsequent interpretations, resource estimations and mining and metallurgical studies.</li> </ul>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>RC drill chips were received directly from the drilling rig via a cyclone and were riffle split on 1 metre intervals to obtain 2-3 kg samples.</li> <li>Sampling size is considered to be appropriate for the style of mineralisation observed. Assay repeatability for gold and other metals has not proven to be an issue in the past and is checked with regular duplicates.</li> <li>All Havilah samples were collected in numbered calico bags that were sent to ALS assay lab in Adelaide.</li> <li>At ALS assay lab the samples are crushed in a jaw crusher to a nominal 10mm (method CRU-42a) from which a 3kg split is obtained using a riffle splitter. The split is pulverized in an LM5 to minimum 85% passing 75 microns (method PUL25e). These pulps are stored in paper bags.</li> <li>All samples were analysed for gold by 30g fire assay, with AAS finish using ALS method Au-</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>aa25 and a range of other metals by ALS method ME MS61.</p> <ul style="list-style-type: none"> <li>• Quarter core was submitted for assay in to obtain results that would allow selection of representative half core samples for metallurgical studies.</li> <li>• Sample preparation and assaying methods are summarized above.</li> <li>• Quality control procedures include the insertion of standards, blanks and duplicates into the regular sample number sequence (approximately 1 in 20 samples). The blanks, standards and duplicates are subject to rigorous statistical checks and if any are out of spec, re-assay of retained samples is requested of the laboratory as a first step. For the present program the QAQC report did not identify any material deviations in either accuracy or precision of the lab analyses.</li> <li>• Sampling size is considered to be appropriate for the style of mineralisation observed. Assay repeatability for gold and other metals has not proven to be an issue.</li> <li>• At ALS assay lab the samples are crushed in a jaw crusher to a nominal 10mm (method CRU-42a) from which a 3kg split is obtained using a riffle splitter. The split is pulverized in an LM5 to minimum 85% passing 75 microns (method PUL25e). These pulps are stored in paper bags.</li> <li>• All samples were analysed for gold by 30g fire assay, with AAS finish using ALS method Au-aa25 and a range of other metals by ALS method ME MS61.</li> <li>• All sample pulps are retained by Havilah so that check or other elements may be assayed using these pulps in the future.</li> </ul>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All samples are prepared at ALS laboratory in Adelaide and assayed at the ALS Perth Hub Lab. The total assay methods are standard ALS procedure and are considered appropriate for resource reporting.</li> <li>• All gold was determined by fire assay method Au-aa25 with AAS finish.</li> <li>• Other elements were analysed by multi-element digest methods with MS finish.</li> <li>• Quality control procedures include the insertion of standards, blanks and duplicates into the regular sample number sequence (approximately 1 in 20 samples). The blanks, standards and duplicates are subject to rigorous statistical checks and if any are out of spec, re-assay of retained samples is requested of the laboratory as a first step. For</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>the present program the QA/QC report did not identify any material deviations in either accuracy or precision of the lab analyses.</p> <ul style="list-style-type: none"> <li>ALS also insert their own QA/QC samples into the sample sequence. Fire assay method Au-aa25 is a total gold analysis.</li> <li>Assay data accuracy and precision was continuously checked through submission of field and laboratory standards, blanks and repeats which were inserted at a nominal rate of approximately 1 per 20 drill samples.</li> <li>Assay data for laboratory standards and repeats have been previously statistically analysed and no material issues were noted.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Rigorous internal QC procedures are followed to check all assay results.</li> <li>All data entry is under control of the responsible geologist, who is responsible for data management, storage and security.</li> <li>No adjustments to assay data are carried out.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>The holes were surveyed using an electronic downhole camera.</li> <li>Present drillhole collar coordinates were surveyed in UTM coordinates using a GPS system with an x:y:z accuracy of &lt;5m and are quoted in GDA94 Zone 54 datum.</li> <li>A differential GPS system with an x:y:z accuracy of 20cm:20cm:40cm will be used to obtain the final drillhole locations used in the database.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The objective of the diamond coring program was to obtain representative samples for metallurgical test work, to carry out geotechnical studies and to twin earlier Havilah RC drillholes in order to check for any systematic bias inherent in the different drilling methods.</li> <li>Hence placing of holes to achieve the above objectives was the main consideration rather than hole spacing.</li> <li>The RC drillholes were positioned at appropriate spacing to test down dip of the surface expression of mineralisation.</li> <li>Sample compositing was not used.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures</i></li> </ul>	<ul style="list-style-type: none"> <li>The drillhole azimuth and dip was chosen to intersect the interpreted mineralised zones as nearly as possible to right angles and at the desired positions to maximise the value of the drilling data.</li> <li>At this stage, no material sampling bias is</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	known to have been introduced by the drilling direction.
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>After cutting, the quarter core samples were placed directly in pre-numbered calico bags by experienced personnel for despatch by courier to the assay lab.</li> <li>RC chip samples are directly collected from the riffle splitter in numbered calico bags.</li> <li>Several calico bags are placed in each polyweave bag which are then sealed with cable ties. The samples are transported to the assay lab by Havilah personnel at the end of each field stint.</li> <li>There is minimal opportunity for systematic tampering with the samples as they are not out of the control of Havilah personnel until they are delivered to the assay lab.</li> <li>This is considered to be a secure and reasonable procedure and no known instances of tampering with samples occurred during the drilling programs.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Ongoing internal auditing of sampling techniques and assay data has not revealed any material issues.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>Security of tenure is via current exploration licences over the Mutooroo Project Area, owned 100% by Havilah.</li> <li>Exploration drilling reported is undertaken on Mutooroo Exploration Licence EL 6592.</li> <li>A Native Title Exploration Agreement is in place for the Mutooroo Project Area. The agreement was executed between Havilah and Wilyakali Native Title Aboriginal Corporation.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Mutooroo was historically mined for oxide and supergene copper to shallow depths in the late 1800's and early 1900's. The area has been explored by a number of groups in the past including Mines Exploration (Broken Hill South), Noranda, Adelaide Wallaroo and CRAE. Broad spaced drillholes were completed at the prospect area in the mid 1960's by Mines Exploration.</li> <li>All previous exploration data has been integrated into Havilah's databases.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation style is massive sulphide vein style copper-cobalt-gold mineralisation within Broken Hill Domain rocks of the Curnamona Province.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as not reporting mineral resources.</li> <li>Simple average grades over the specified intervals are reported, with no weighted aggregation of results. Reported mineralisation does not include intervals that are considered to be of uneconomic grade in the context of adjacent mineralised intervals. This is considered appropriate for reporting of exploration results.</li> <li>Not applicable – see above.</li> <li>Not applicable as no metal equivalent values are stated.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).</i></li> </ul>	<ul style="list-style-type: none"> <li>Downhole lengths are reported. Drillholes are typically oriented with the objective of intersecting mineralisation as near as possible to right angles, and hence downhole intersections in general are as near as possible to true width.</li> <li>For the purposes of the geological interpretations and resource calculations the true widths are always used.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not strictly applicable as not reporting a mineral discovery.</li> <li>This information is provided.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as not reporting mineral resources.</li> <li>Only potentially economic grade intervals are reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>Relevant geological observations are reported.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>No further Mutooroo drilling is planned until all drilling results are received and evaluated. Downhole electromagnetic surveying is currently planned for selected drillholes to identify any off-hole conductive zones that could be indicative of undrilled massive sulphide.</li> </ul>