HILLGROVE RESOURCES

ASX RELEASE

Thursday, 26 May 2016

HILLGROVE ANNOUNCES 2016 MINERAL RESOURCE STATEMENT

Hillgrove Resources is pleased to announce that a new Mineral Resource Estimate (MRE) has been completed. This MRE updates the area bounded by the Giant open pit operation at the Kanmantoo Copper Mine.

- The new MRE removes all historic drill holes not drilled and quality controlled by the Company.
- After allowing for depletion of 38,320 tonnes of copper in Giant since 2013, the 2016 Mineral Resource Estimate contains an additional 11,080 tonnes of copper compared to the 2013 resource model.
- The new 2016 MRE reconciles favourably against both the historical production from Kavanagh and the last three months production.

The Company will release an updated Reserve within the next quarter.

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Thursday, 26 May 2016

KANMANTOO COPPER MINE – 2016 MINERAL RESOURCE STATEMENT

Hillgrove Resources Limited (ASX:HGO) advises that a new Mineral Resource Estimate has been completed, revising the area bounded by the Giant open pit operation at it's Kanmantoo copper operations.

Overall, the Mineral Resource Estimate completed in 2016 ("2016 MRE") for the Giant copper deposits[1] has added 11,100 tonnes of copper metal (49,400 additional tonnes minus depleted mining of 38320 tonnes) compared to the previous 2013 resource model[2] for the same deposits, from the same surface and to the same depths.

2016 MINERAL RESOURCE ESTIMATE ≥0.2% Cu, 29 FEBRUARY 2016 For Giant Area Only					
	Classification	Tonnes (000's)	Cu %	Au g/t	Ag g/t
Giant Area (Kavanagh & Spitfire)	Measured	9,240	0.6	0.1	1.1
	Indicated	5,400	0.6	0.1	0.9
	Inferred	11,400	0.5	0.1	1
	Total	26,040	0.6	0.1	1

Reconciliation of the new 2016 MRE against historic production in Kavanagh indicates that the model under-reports by 5-8% on tonnes and grade for a combined variance of 11% in copper metal tonnes, and will be useful for mine planning and forecasting.

The Total Mineral Resources for all the 11 copper deposits at Kanmantoo (the 2016 MRE plus the 2013 depleted resources) at 0.2% Cu cut-off grade and from the 1 March 2016 surface are now;

KANMANTOO COPPER MINE RESOURCE (≥0.2% Cu, 29 FEBRUARY 2016) TOTAL for All Deposits				
Classification	Tonnes (000's)	Cu %	Au g/t	Ag g/t
Measured	10,580	0.6	0.1	1.2
Indicated	10,880	0.7	0.1	1.4
Inferred	13,700	0.5	0.1	1
TOTAL	35,160	0.6	0.1	1.2

The 2016 MRE differs in several significant aspects from the previously reported 2013 Resource[3] for the Giant area (Kavanagh plus Spitfire deposits);

[1] only includes the previously termed Kavanagh and Spitfire copper domains
[2] 2013 Mineral Resource Estimate released to ASX on 30 August 2013
[3] ASX Release 30 August 2013

- The 2016 MRE is a recoverable resource estimate using a Multiple Indicator Kriging process within broad geologic domains and therefore significantly differs from the 2013 resource estimate that utilised an ordinary kriging process within numerous 0.2% Cu deterministic outlines

- The 2016 MRE has estimated Inferred tonnes for the mineralisation that occurs in the areas that were not previously domained, as a result of detailed reconciliation of the 2013 Resource against production

- The 2016 MRE does not include any of the Historic (pre-2000) drilling, only the Hillgrove Resources controlled drilling from 2004 to 2013

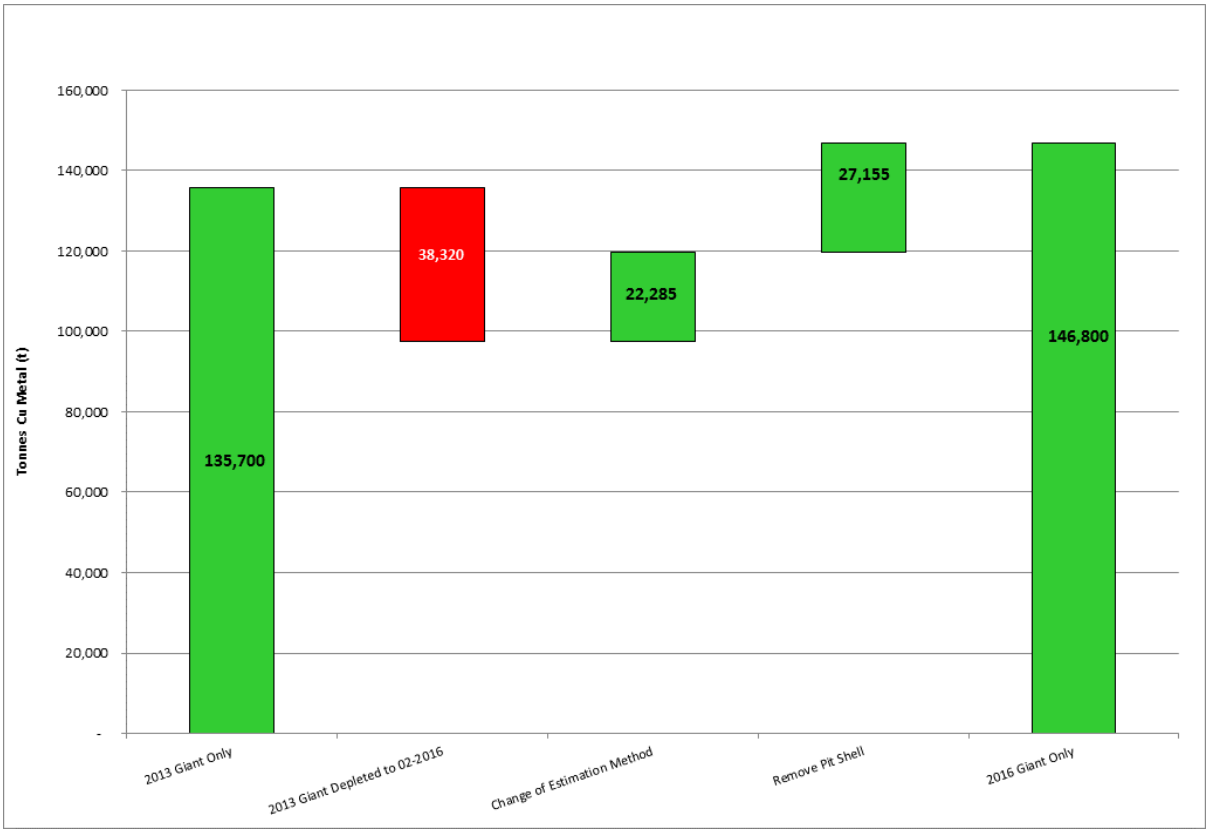
- The 2016 MRE does not include new estimates for Paringa, Nugent (O'Neil), Emily, Critchley, Valentine, Falcon, Mathew (North-West), Slot Extension or Coopers Find. These remain as for the 2013 resource estimates and depleted for production from 1 March 2013 to 29 February 2016

- The 2016 MRE is systematically classified by local drill density and local mineralisation intensity

- The 2016 MRE has removed the 2013 Whittle pit shell as the definition of "economically exploitable" and used the existing actual Mine Permitted area to the same depth as previously reported, and the current mine cut-off grade of 0.2% Cu

- The 2016 MRE has explicitly accounted for dilution due to the mining selectivity, and for the Information Effect attributable to the current grade control sampling pattern.

The changes specific to the areas bounded by the Giant open pit operation is diagrammatically shown below:



The 2016 Mineral Resource Estimate

Geology

The Kanmantoo copper operation is located approximately 55km east-south-east of Adelaide, South Australia (Figure 1) on Mining Lease 6345 held 100% by Hillgrove. The mine site is fully permitted and has been operational since 2011.

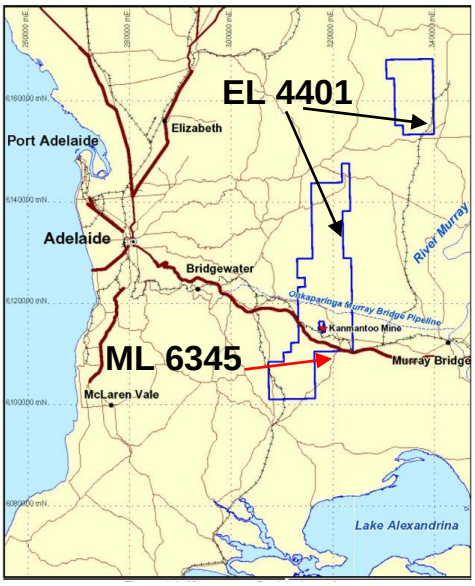


Figure 1 Location of Kanmantoo copper mines

The copper deposits at Kanmantoo are hosted within a folded sequence of pelitic metasediments of Cambrian age within the Adelaide Fold Belt (Figure 2) and are part of a strongly mineralised province including several Au, Pb-Zn-Ag and Cu deposits.

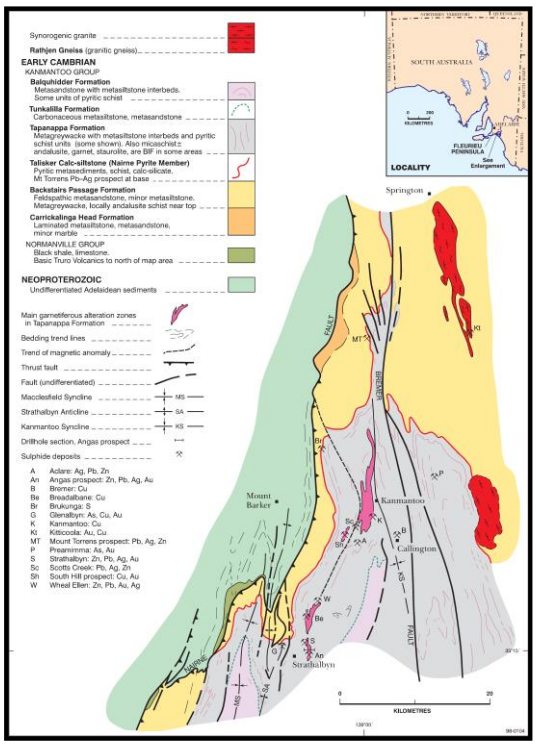


Figure 2 Regional geology of Kanmantoo Trough

Copper mineralisation at Kanmantoo typically occurs as a complex system of structurally and stratigraphically controlled veins, disseminations and sigmoidal bodies within an intense quartz, biotite, chlorite, garnet and +/- magnetite alteration zone.

The central portion of the significant deposits (i.e. central portions of the Kavanagh and Spitfire zones) exhibit strong spatial continuity and intense alteration and mineralisation over broad widths. However, as the alteration intensity weakens with distance from the epicentre, the mineralisation becomes more discontinuous with multiple small layers/zones of intense mineralisation within broad zones of very weak alteration.

Primary mineralisation is characterised by coarse grained chalcopyrite, pyrrhotite, pyrite, and minor native gold and native bismuth.

History

The Kanmantoo mineralisation was discovered in the mid 1800's but was not systematically exploited until a subsidiary of BH South commenced exploration and diamond drilling in mid to late 1960's. This work successfully delineated the Main Kanmantoo copper deposit (now called Kavanagh) and production commenced in 1970. Open pit mining ceased in 1976 as a result of poor metal prices, at which time the open pit was down to 120m below surface (1080mRL).

Database

The Kanmantoo drill hole database comprises three datasets; Historic drilling (pre-2004), Hillgrove drilling (2004-2013), and Hillgrove's blast hole dataset.

The Historic dataset contains 186 diamond holes drilled by Kanmantoo Limited during the period 1964-74. The reliability of this dataset is unknown as there is incomplete logging, incomplete assaying (long drill core intervals are logged as disseminated and vein style chalcopyrite, but were never assayed), minimal QAQC, and minimal detailed assay information associated with the drilling. The limited QA/QC indicates large uncertainty around downhole surveys and poor assay repeatability of this historic data. Previous estimates have excluded a large number of these drill holes and this study has removed all Historic drill holes. Removing the Historic drill holes has created a dearth of drill hole data in at least one area of the Giant resource area (Figure 3), and consequently this new Mineral Resource Estimate has a higher proportion of Inferred resources compared to previous resource estimates.

Hillgrove has completed three new drill holes since the 2013 Resource estimate of which KTRC995 intersected[4];

- 28m @ 0.61% Cu, 0.14g/t Au, 2.6g/t Ag
    - Including 10m @ 0.88% Cu, 0.18g/t Au, 3.2g/t Ag

These three holes are all outside the area of the new Mineral Resource Estimate and therefore the Hillgrove drill hole data set for the new estimate has not altered since the last resource model in 2013.

Period	Hole Type	Hole ID's	Total Holes	In This MRE
July 2004 to March 2010	Diamond	KTDD001 to KTDD180	173	123
July 2006 to Feb 2007	RC/Diamond	various KTRCD	20	12
March 2004 to Aug 2007	RC	KTRC001 to KTRC631	613	74
Dec 2007 to Nov 2013	RC	KTRC632 to KTRC992	359	41
September 2013	Diamond	KTDD181 to KTDD186	4	0
March 2015	RC	KTRC993 to KTRC995	3	0
Total			1172	250

Table 1 Hillgrove drill holes

The Blast Hole data has been used to assist with geologic domaining, but is not used in any univariate or bivariate statistical analysis.

[4] ASX Release 13 April 2015

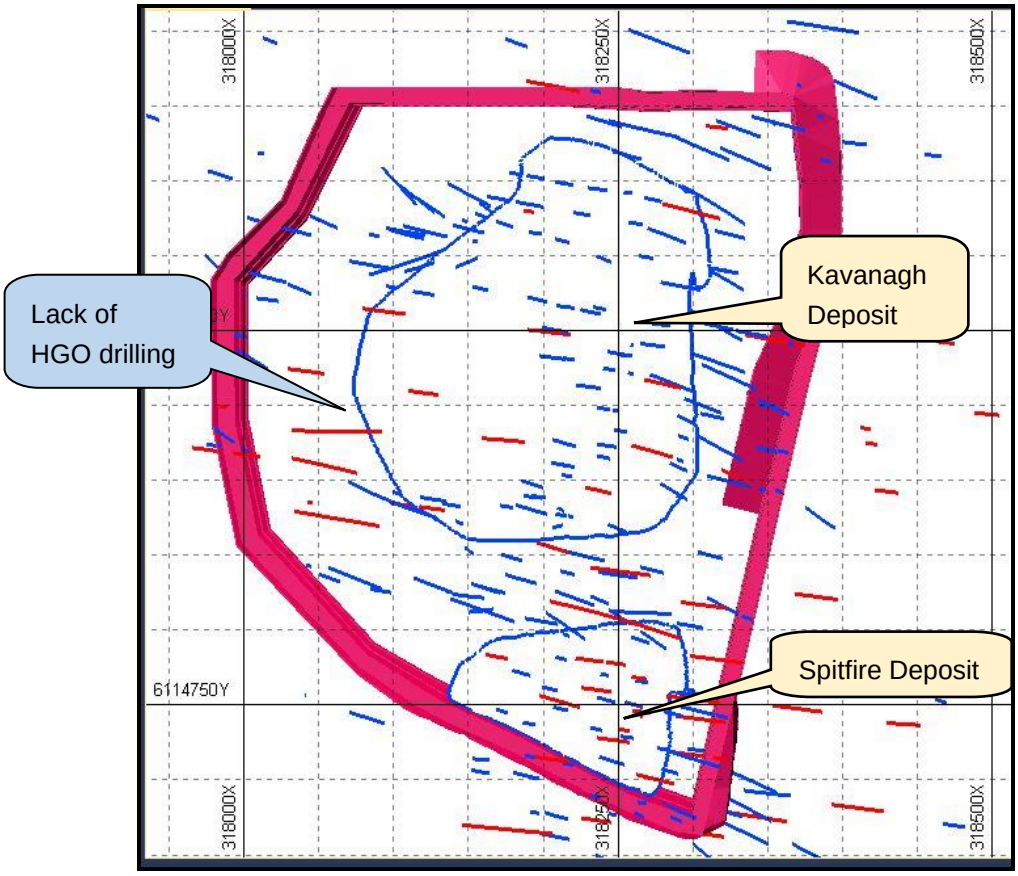


Figure 3 Historic and Hillgrove drill density for the Giant pit area
(Historic drilling in red, Hillgrove drilling in blue)
Red outline is Giant pit design, Blue outline is pit surface at 1 March 2016

QA/QC of Data

The Quality Assurance/Quality Control (QA/QC) procedures used by Hillgrove are consistent with industry good practice and the geological database is found to be of reasonable integrity. Field duplicate assays and Reference Material assays provide reasonable confidence in the precision and accuracy of the Hillgrove sampling and assay processes. See Table 1 for a description of the QA/QC practices.

Copper deposits

Drilling by Hillgrove has identified 12 separate copper deposits (Figure 4). This 2016 Mineral Resource Estimate only updates the resources for the area of the Giant open pit, which only includes the Kavanagh (formerly called Main) and the Spitfire copper deposits. The mineral resources for the remaining copper deposits were reported to the ASX on 30 August 2013.

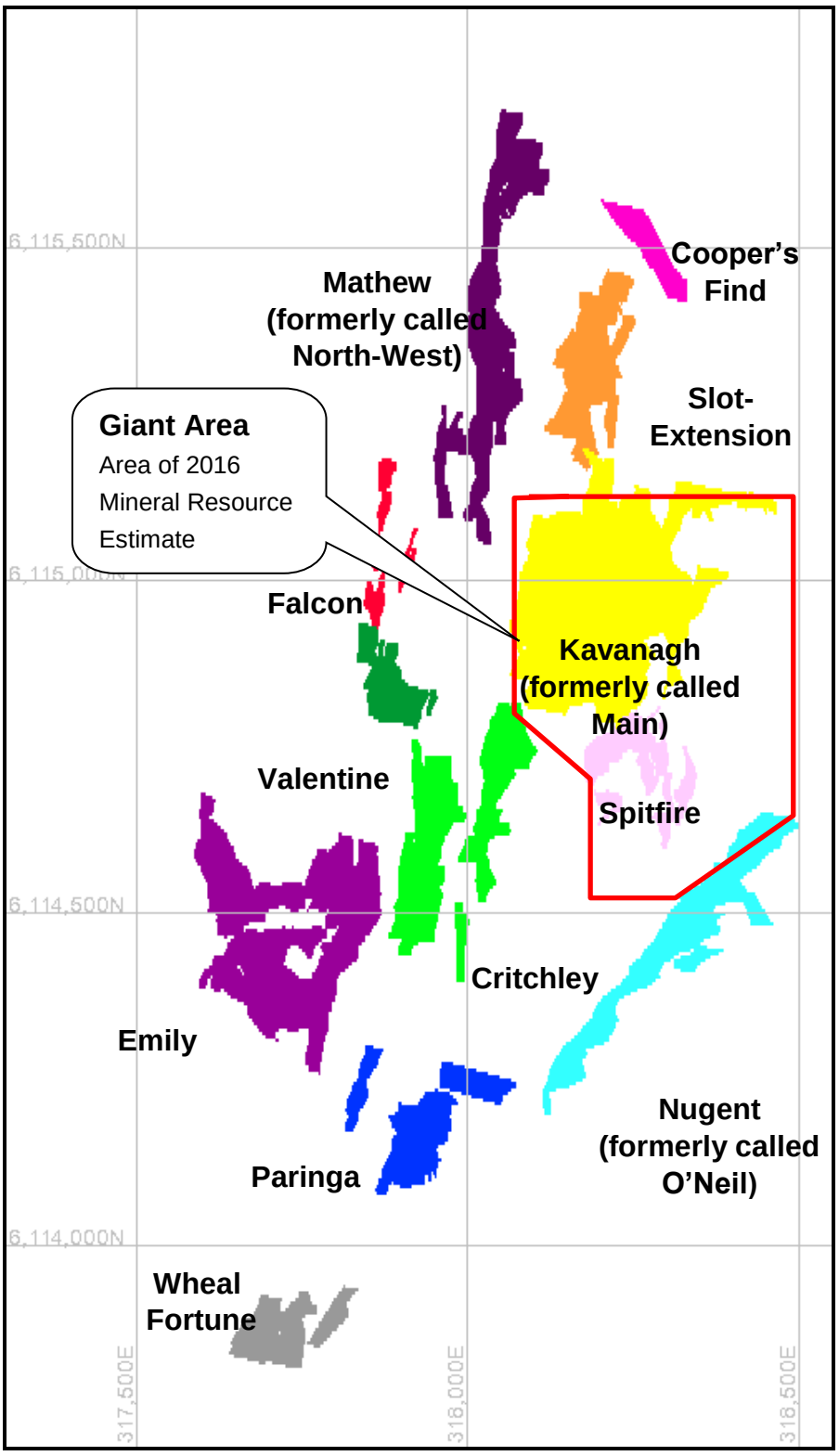


Figure 4 Copper deposits at Kanmantoo

Geologic Domains

Several geologic entities within the Kavanagh and Spitfire deposits have been wireframed based on alteration codes as logged by the exploration staff, in particular chlorite intensity, and the lithology code "Biotite-garnet-chlorite schist", in conjunction with a generalised 0.5% sulphur envelope.

There are a total of seven domains interpreted for the area of the resource estimate. Six alteration domains and one domain covering all the mineralised waste within the resource area.

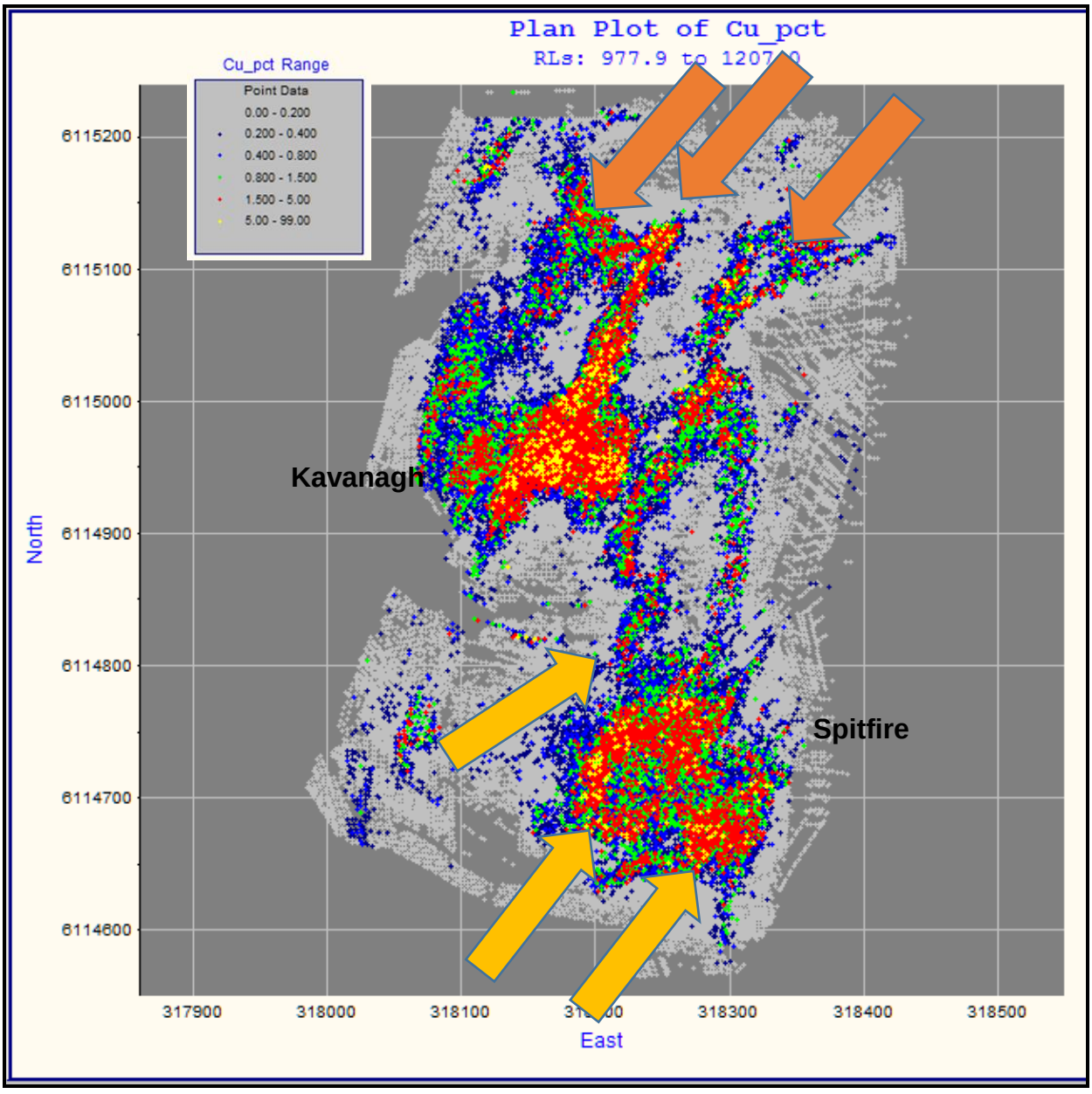


Figure 5 All Blast Hole copper grades sorted by grade
(the arrows show the general locations of the estimation domains)

Estimation Method

Multiple Indicator Kriging has been used to estimate the proportion of each panel that is mineralised above a range of copper cut-off grades. The histograms of estimated copper grades within 10m (east) by 20m (north) by 12m (elevation) panel were corrected for an SMU of 4m by 10m by 4m (assuming a lognormal distribution) and corrected for the Information Effect of a 4m by 4m x 6m grade control sampling pattern.

The resultant Recoverable Resource Estimate includes recoverable estimates for Cu, and panel average estimates for Ag, Au, and S.

Resource Classification

Three estimation passes were used, with each pass providing an increase to the search strategy from 12m x 42m x 42m to a maximum of 20m x 70m x 70m. Measured and Indicated were coded by the smallest search strategies. Panels were classified Inferred if they were estimated with the largest search strategy or if more than 50% of the panel is waste.

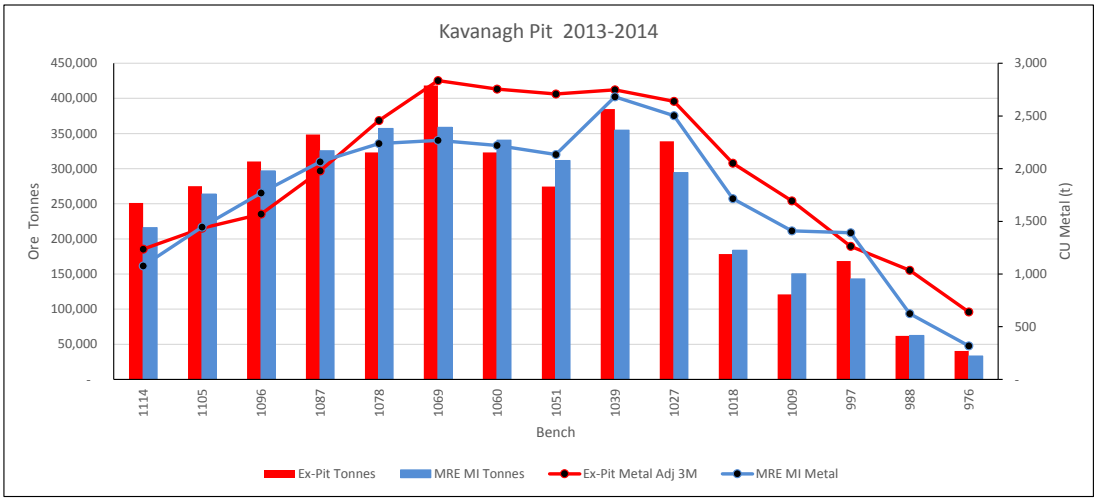
Validation

Comparison of the 2016 MRE and drill hole data, both spatially and statistically indicates a reasonable correlation and mapping of the mineralisation.

Validation of the 2016 MRE against production indicates that the estimate is understating the quarterly production (~0.85Mt) by 5-8% for tonnes and copper grade. The chart below compares the production from the Kavanagh pit, mined in 2013 to 2014 by Hillgrove. The Kavanagh pit is stage one of the Giant Pit and mined ore from all geologic domains. The reconciliation is therefore considered indicative of the mineralisation to be encountered in the remaining mine life of the Giant pit.

The 2016 MRE understates metal on the benches immediately below the historically mined 1970's pit floor (1080mRL), as a result of limited Hillgrove drilling immediately below the 1970's pit floor. Overall, the 2016 Mineral Resource Estimate maps the production tonnes and grade reasonably well, albeit conservatively.

These reconciliations against production statistics support the efficacy of the 2016 MRE for forecasting production, and confirm the validity of the classification scheme.



2013 Mineral Resource Estimate

The 2016 Mineral Resource Estimate has only re-estimated the mineral resources for the area covered by the Giant pit operation, and only includes the Kavanagh and Spitfire deposits. The remaining

deposits were estimated in 2013 and remain as reported in the ASX release of 30 August 2013 except as depleted by mining from 1 March 2013 to 29 February 2016. There is no further drilling within these deposit areas. The table below reports the 2013 resources depleted to 29 February 2016 for all deposits, not including the Giant area.

2013 MINERAL RESOURCE ESTIMATE (ASX 30 August 2013) Depleted for Production to 29 February 2016 ≥0.2% Cu, All other deposits					
	Classification	Tonnes (000's)	Cu %	Au g/t	Ag g/t
Paringa	Indicated	560	1.0	0.2	1.3
	Inferred	50	1	0.2	1
Nugent (O'Neil)	Indicated	1,160	0.9	0.4	2.1
	Inferred	500	0.6	0.3	2
Emily	Measured	1,340	0.8	0.1	1.8
	Indicated	580	0.9	0.1	1.6
	Inferred	200	1	0.2	1
Critchley	Indicated	810	0.5	0.1	1.2
	Inferred	850	0.4	0.1	1
Valentine	Indicated	140	0.8	0.1	1.6
	Inferred	50	0.8	0.1	2
Falcon	Indicated	100	0.6	0.1	1.1
	Inferred	0	0.0	0.0	0
Norh-West (Mathew)	Indicated	940	0.6	0.1	2.3
	Inferred	350	0.6	0.2	3
Slot-Extension	Indicated	1,190	0.6	0.1	2.5
	Inferred	50	0.4	0.1	2
Coopers Find	Inferred	250	0.6	0.1	3
Depleted 2013 Resource	Measured	1,340	0.8	0.1	1.8
	Indicated	5,480	0.7	0.2	1.9
	Inferred	2,300	0.6	0.2	2
	TOTAL	9,120	0.7	0.2	1.9

Table 2 Depleted 2013 resource estimates[5]
Not including Kavanagh (formerly Main) or Spitfire

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[5] Measured tonnes rounded to 5,000, Indicated tonnes rounded to 10,000, Inferred tonnes rounded to 50,000

ABOUT HILLGROVE

Hillgrove is an Australian mining company listed on the Australian Securities Exchange (ASX: HGO) focused on the operation of the Kanmantoo Copper Mine in South Australia, and with exploration projects on its Indonesian tenements. The Kanmantoo Copper Mine is located less than 55 kilometres from Adelaide in South Australia. With construction completed in late 2011, Kanmantoo is an open-cut mine with a throughput of 3.0 - 3.5Mt p.a., to produce up to 100,000 dry metric tonnes of copper concentrate per annum, containing approximately 20,000t copper and associated gold and silver per annum over the current life of mine.

Kanmantoo Mineral Resource Estimate at End February 2016

	JORC 2012 Classification	Tonnage (Mt)	Cu (%)	Au (g/t)	Ag (g/t)
2016 Mineral Resource All Deposits	Measured	10.58	0.6	0.1	1.2
	Indicated	10.88	0.7	0.1	1.4
	Inferred	13.70	0.5	0.1	1
	TOTAL	**35,160**	**0.6**	**0.1**	**1.2**

Note: Resource ≥0.20% Cu

Competent Person's Statement

The information in this release that relates to the 2016 Mineral Resource for Giant is based upon information compiled by Mr Peter Rolley, who is a Member of The Australian Institute of Geoscientists. Mr Rolley is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration 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 (JORC Code)'. Mr Rolley has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The information in this release that relates to the 2013 Mineral Resource not including Giant is based upon information compiled by Ms Michaela Wright, who is a Member of The Australasian Institute of Mining and Metallurgy. Ms Wright is a full-time employee of Hillgrove Resources Limited and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration 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 (JORC Code)'. Ms Wright has consented to the inclusion in the release of the matters based on their information in the form and context in which it appears.

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APPENDIX A – JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary

Sampling techniques	• Reverse circulation (RC) and diamond drill hole (DD) samples collected by Hillgrove Resources personnel have been used for the geological interpretation and estimation. No historic samples have been used in this mineral resource estimate.
	
	• Drill hole sampling was conducted as per the Hillgrove Resources procedures and QAQC protocols.
	
	RC Drilling:
	
	• 2004 to 2007 drilling:
	  • A rig mounted 75/25 splitter was used to collect a bulk sample and smaller split sample (3-4kg) directly off the drill rig at 1m intervals. The split sample was then split down manually if required using a cone or riffle splitter to generate a sample of ~3kg.
	  • 1m intervals were assayed with samples being prepared by Genalysis Laboratories in Adelaide. Each sample was pulverised to ~95% passing -75µm and the remaining pulp shipped to Genalysis Perth for analysis.
	• 2011 – 2012 drilling:
	  • 1m bulk samples were collected during drilling with smaller split samples (3-4kg) for assay being collected primarily using a cone or riffle splitter directly off the rig.
	  • Specific target intervals and/or samples exhibiting visible mineralisation were assayed at 1m intervals. All other sample intervals were composited (using spear sampling) to 4m intervals for assaying. On return of assay results, the 4m composite results were examined and any 4m composites returning an economic copper grade (>0.2%) were re-assayed using the original 1m samples

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>(collected from original bulk sample using spear sampling to produce a representative 1.5kg to 3kg sample).
• Samples were prepared by ALS Adelaide with each sample being riffle split to a maximum size of 3kg then pulverised split to 85% passing 75µm or better and then shipped to ALS Perth for assay.
Diamond core:
• Core samples were sawn in half using a diamond core saw. A small percentage of core samples were sawn in quarters. Sampling was undertaken at 1m intervals or to geological boundaries as determined by the supervising geologist. Half or quarter core samples were sent for assay and the remaining core kept in core trays for future reference.
• Samples were prepared by Genalysis Laboratories in Adelaide using a jaw crusher to ~2mm. Each sample was then pulverised to ~95% passing -75 µm and the remaining pulp shipped to Genalysis Perth for assaying.</td></tr>
<tr><td>Drilling techniques</td><td><table>
<tr><th>Drillhole Type</th><th>Drill Date</th><th>Bit Size</th><th>% Orientated</th><th>Orientation Method</th></tr>
<tr><td>Diamond</td><td>All</td><td>HQ from surface to fresh then NQ2 to end of hole</td><td>97%</td><td>Spear</td></tr>
<tr><td rowspan="2">RC</td><td>2004 & 2007</td><td>$5\frac{3}{4}$"</td><td>NA</td><td>NA</td></tr>
<tr><td>2011 & 2012</td><td>4.5"</td><td>NA</td><td>NA</td></tr>
</table></td></tr>
<tr><td>Drill sample recovery</td><td>RC
• Sample recovery or the occurrence of wet samples is not recorded in the drillhole database although communications with Exploration Personnel and field observations indicate that sample recovery or wet samples were rarely a problem.
Diamond
• Diamond core recovery is recorded by Hillgrove Field Technicians during metre marking and orientation of all holes. Results demonstrate good recoveries with an average recovery rate of 97%. Core loss generally occurs in the upper sections of holes throughout the oxidised and transitional material. Core loss at depth is generally associated with a low Rock Quality Designation (RQD) value, suggesting the interval represents a shear or fault zone.</td></tr>
<tr><td>Logging</td><td>• All RC chips and diamond core were logged for lithology, alteration, weathering and mineralisation by Hillgrove Geologists in accordance with Hillgrove's Core Logging Procedure. Colour and any additional qualitative comments were also recorded.</td></tr>
</table>

Criteria	Commentary
	• 99% of all diamond holes have been geotechnically logged and the majority also have magnetic susceptibility readings at 1m intervals. • All diamond core trays were photographed before sampling and these photographs are stored on the Hillgrove server. • Both drill core and RC chip trays area stored on site in a core yard facility. • All geological logging and magnetic susceptibility readings are recorded in the field manually using a paper-based system and then manually entered into Excel spread sheet templates and visually validated before being imported into the Hillgrove drillhole database. Additional validation is conducted automatically on import.
Sub-sampling techniques and sample preparation	RC holes • Sub-sampling as described in the *"Sampling Techniques"* section above. Diamond holes • Sub-sampling as described in the *"Sampling Techniques"* section above. • Field Duplicates were collected via manual splitting of the bulk sample with a riffle or cone splitter if available or by spear sampling. All field duplicates for drilling from 2011 onwards were collected using spear sampling. Analysis of the field duplicate results indicates that this method of duplicate sample collection is satisfactory. • Hillgrove have detailed sampling and QAQC procedures in place to ensure sample collection is carried out to maximise representivity of the samples and minimise contamination.
Quality of assay data and laboratory tests	• Pre 2011, all samples were submitted to Genalysis for analysis. Gold was determined by fire assay by flame AAS (FA50) and copper analysed via a mixed acid digest (method AT) with determination by Optical Emission Spectrometry (OES). If the copper result was greater than 1%, the analysis was repeated using a slightly modified mixed acid digestion technique (method AX). • Post 2011 samples were submitted to ALS Perth for assaying by four acid digest with Atomic Absorption Spectroscopy (AAS) and gold was analysed via fire assay and Atomic Absorption Spectroscopy (AAS). • Approximately 20% of the total samples used for this estimation were assayed using a double acid aqua regia digest with an ICPOES finish (a method which does not guarantee complete dissolution of sample). A re-assay program was undertaken in 2011 which detected no bias between the results of the double acid aqua regia digest and the mixed acid digestion results. • The QAQC of sample preparation and analysis processes were via the following samples: • Certified reference materials (CRMS) inserted into the sample sequence at a frequency of one in 20.

Criteria	Commentary
	• Field duplicates inserted at a rate of one in every 20 samples. • Blanks inserted at a rate of one in every 20 samples. • Laboratory QAQC samples were inserted with a minimum of two standards and one blank for every batch of 40 samples. • Hillgrove's Quality policy is that at a minimum of 5% of all samples are CRM's, 5% of samples submitted are blanks and 5% of samples submitted are field duplicates thus ensuring that as a minimum, 15% of all samples submitted for analysis are QAQC samples. • Results from all returned QAQC samples provide reasonable confidence as to the accuracy of the assay results used in the estimation. Field duplicates show a good correlation with original sample results and in general most CRM results fall within the expected ranges.
Verification of sampling and assaying	• Umpire laboratory checks were undertaken during 2008 and 2011 with no significant issues identified. • There have been no twinned holes drilled for the Kanmantoo Copper Mineral Resource. • Primary sample data is captured in the field onto paper templates and then entered electronically into Excel templates and stored on the Hillgrove server. The Excel templates were then imported into the SQL database using data entry procedures and database import tools. Data was visually checked by the Geologist prior to import and additional validation was carried out by the database upon import. • Copper results were reported in ppm units from the laboratories and then converted to a % value within the database.
Location of data points	• The map projection of Map Grid of Australia 1994 - Zone 54, (MGA94-54) was used all work undertaken for this Mineral Resource. • Hillgrove drilling was planned and set-out using the local Kanmantoo Mine Grid and then transformed to MGA94-54 for the Resource estimation. The Kanmantoo local grid is oriented at +10º to MGA94_Zone 54 – (i.e. local grid North equates to 010º MGA94_Zone 54). • Within the database the relative level (RL) has been calculated as RL+1000m to ensure no negative RL values within the dataset. • The topographic surfaces used in the estimation have accuracy in the z direction of approximately +/-1m for the majority of the block model area due to the use of lower resolution contours outside the direct mine areas. The source of the contours used outside of the Mining area was sourced from a mix of 2008 flyover data and other Surveys performed Prior to Nov 2008. The Kanmantoo Mine area and immediate surrounds have +/-20mm accuracy as this area is updated by the Hillgrove Surveyors regularly using a DGPS (Trimble R8 GNSS Model 3 using kinematic option). • Pre-2011, all drillhole collars were surveyed by Engineering Surveys Pty Ltd (Adelaide) using DGPS. All pick-ups were reported in MGA94-54 coordinate system and converted to local grid. • Post-2011, all drillhole collars surveyed using DGPS (Trimble R8 GNSS Model 3 - kinematic option) by onsite Hillgrove Surveyors. The accuracy of this instrument is 10mm in the horizontal plane and 20mm in the vertical. All pick-ups were reported in MGA94-54

Criteria	Commentary
	coordinate system and converted to local grid. • Downhole surveys were determined using a variety of methods including Gyro tool, Camteq, Digital downhole cameras, Eastman single shot camera and Compass Clinometers. For all holes initial surveys were completed with either a conventional Eastman single shot camera or digital down hole survey tools and then the majority of drillholes were re-surveyed using a Gyro tool. • All downhole survey methods have a priority assigned to them in the drillhole database and therefore holes with data from multiple methods have had their survey values allocated according to this priority.
Data spacing and distribution	• Drilling was completed throughout the deposit on a variable section spacing of between 15 m to 40m and an on-section collar spacing of between 10 m and 50m. • The variable drill spacing both along strike and on-section was considered during resource classification; mineralisation estimated on broader spaced drilling was given a lower confidence classification than mineralisation estimated using tighter spaced drilling. • All samples were composited to 2m lengths prior to geostatistical analysis and Mineral Resource estimation.
Orientation of data in relation to geological structure	• The majority of holes are angled drillholes (dipping between -55º and -75º) drilled from (Kanmantoo local grid) east to west. The Kanmantoo local grid is oriented at +10º to MGA94_Zone 54 – (i.e. local grid North equates to 010º MGA94_Zone 54). The rotation of the local grid reflects the average 010º strike of the main mineralised lenses and local dominant mineralisation controls. Predominantly the main mineralised lenses dip steeply to local grid east, therefore east-west (local grid) orientated drillholes and section provide as close to practicable “true width”, representative intersections of lithology and mineralisation. • Whilst some mineralised lenses, most notably the Nugent-O’Neil lens and Emily domain are somewhat oblique to the general 010º strike of the mineralised zones, these lenses still generally exhibit a steep easterly dip and their orientation is not considered to have introduced any sampling bias material to the Resource estimation.
Sample security	• RC samples – A Hillgrove employee is present for the collection of samples off the rig and is also responsible for collecting and organising the samples ready for assay. Hillgrove has a detailed sample collection/submission procedure in place to ensure sample security. • Assay samples are collected from the rig at the end of each day by Hillgrove Field Technicians, sealed in large plastic bags and placed at the Exploration office ready for pick up by courier. Check sheets detailing all samples for a specific batch are generated prior to the samples leaving site. • DD samples – A Hillgrove employee is responsible for picking up the completed core from the rig at the end of each day and moving it to the core yard ready for processing. Hillgrove Field Technicians and geologists are then responsible for all core movements through to

Criteria	Commentary
	sampling and preparing for transport to the preparation facility. • Sample transport is by dedicated road transport to the sample preparation facility. All samples are transported in sealed plastic bags and are accompanied by (either paper form or by email) a detailed sample submission form generated by the Field Technician. • On receiving a batch of samples, the receiving laboratory checks received samples against a sample dispatch sheet supplied by Hillgrove personnel. On completion of this check a sample reconciliation report is provided for each batch received.
Audits or reviews	• Core logging and sampling methods were reviewed by Runge in 2008 and were considered to be of a very high standard (report: Mineral Resource Estimate Kanmantoo Copper Deposit South Australia, Feb 2008).

Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• The Kanmantoo Copper Deposit is situated 55kms south-east of Adelaide on Mining Lease (ML) 6345 and is owned 100% by Hillgrove Resources Limited (HGO). • The Mining Lease overlies freehold land also held by Hillgrove Resources. • There are no Native Title interests, nor are there any historical or environmental issues considered material to this Mineral Resource.
Exploration done by other parties	• The Kanmantoo Copper Deposit has a long history of exploration and mining dating back to the mid-19th century. • In 1962, Mines Exploration Pty Ltd discovered a number of strong geophysical anomalies which were quickly followed up by a large diamond drilling program of 15,800m. The results of this program led to a decision to begin mining in 1968. • In the mid 1990's the Kanmantoo Project area became part of a joint venture between Kelaray Pty Ltd and Pima Mining N.L. and auger drilling identified several new prospects although follow up RC work failed to identify any new significant targets. • Hillgrove Resources commenced exploration drilling in 2004 and since then have completed a number of exploration drill campaigns which have resulted in extensions and additions to the known deposit. Pre-strip and near surface mining commenced in early 2011 and the commissioning of the processing plant was completed in November of the same year.
Geology	• Mineralisation occurs as a complex system of structurally controlled veins, with mineralisation typically forming pipe-like bodies and lenses of chalcopyrite, pyrrhotite, pyrite, magnetite, chalcocite and bornite within a quartz + biotite + andalusite ± garnet ± chlorite schist host rock. Structural studies suggest the main controls on the mineralisation are north-south striking shear zones and north-north-east/north-east striking cross-shears and tension veins.
Drill hole Information	• No exploration results have been reported in this release, therefore this section is not material to this report.
Data aggregation methods	• No weighting average techniques or grade truncations have been reported in this release. • No metal equivalent values have been reported.
mineralisation widths and intercept lengths	• No exploration results have been reported in this release, therefore this section is not material to this report.
Diagrams	• Diagrams that are relevant to this release have been included in the body of the release.

Criteria	Commentary
Balanced reporting	• No exploration results have been reported in this release, therefore this section is not material to this report.
Other exploration data	• No exploration results have been reported in this release, therefore this section is not material to this report.
Further work	• No exploration results have been reported in this release, therefore this section is not material to this report.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• Hillgrove Resources utilise an SQL database system which is managed by the Senior Geologist. • Primary data is collected manually in the field onto paper templates and then later entered electronically into excel templates with lookup tables and fixed formatting to aid validation. Primary data is stored on Hillgrove's server and then imported into the SQL database using detailed data entry standards and database import tools. • Data is visually checked and validated prior to being imported into the SQL database and additional validation is performed on import via a number of embedded validation rules within the SQL database system. This automatic validation is configured through the use of library tables, triggers and stored procedures designed to ensure data integrity with respect to a number of fundamental quality essentials. Any data which violates these rules is rejected and quarantined until the errors are corrected. • For the Mineral Resource, data tables were exported from the SQL database as comma separated files (CSV's) using export tools embedded with the database. These CSV files were then imported into a standalone Access database for the sole purpose of the estimation. Data within this new Access database was visually checked against the original SQL database dataset using the 3D software package
Site visits	• The Competent Person works at the Kanmantoo Copper mine and regularly visits the production pit. The Competent Person has also viewed a small amount of RC drill samples and a small quantity of diamond core. The Competent Person has also been involved in the daily grade control processes such as blast hole logging and the generation of grade control models and block outs which were used to aid interpretation of some of the mineralised zones for this Mineral Resource.
Geological interpretation	• Structural studies conducted by Hillgrove denote that the main controls on mineralisation are the north-south striking shear zones and the north-east to north-north-east striking cross-shears and tension veins. This strong structural control is evident throughout the entire deposit and often generates rapid changes to mineralisation over very short distances. • The dip of the mineralisation is generally steeply dipping (70º to 80º) towards the East. • Mining of the Spitfire and Main Zone domains together with the availability of the more detailed grade control drilling data has revealed that the mineralisation and host structures are more complex than can be detailed by the spacing of the exploration drilling. • Geologic domains were predominately modelled on chorite, sulphur and copper content with a moderate influence from structural knowledge gained during mining. Due to the drilling spanning such a large time period, the variability in logging practices over time makes the lithology and alteration logs very difficult to model and interpret both on and between sections. • Throughout the deposit the geological continuity of both the mineralisation and its host structures varies significantly between domains.

Criteria	Commentary
	• Domains were projected around 50m beyond the limit of drilling.
Dimensions	• The Kanmantoo Copper Deposit Mineral Resource model has a north-south strike length of 2.1km, a maximum width of approximately 1km east-west and extends 620m vertically. Within this area, the mineralisation within the areal limit of the Giant Pit (includes the Kavanagh and Spitfire deposits) which is the subject of this Mineral Resource Estimate has been modelled over 530m along strike, 350m east-west and 400m down-dip.
Estimation and modelling techniques	MODELLING • The three dimensional mineralisation wireframes were completed using Micromine 2011 Ver 12.5.2 • Domain interpretation updates were completed using 10m and 20m spaced sections, dependent on drillhole spacing. • Wireframe objects for 3 domains at Kavanagh and 3 domains at Spitfire were built for the new modelling method. • Modelling of mineralisation was completed using chlorite, sulphur and copper values. A 0.1% copper envelope, 0.5% Sulphur envelope and Chlorite alteration index were used to delineate mineralised geology from mineralised waste. • Major geological domains were interpreted predominately on mineralisation, with some influence from grade control copper grades. • Sectional interpretations were extrapolated to a minimum of 25m down-dip of the deepest drillhole if drilling did not close off mineralisation and half the drillhole spacing if extrapolating between a mineralised and an un-mineralised drillhole. Interpretations were often extended beyond 25m down-dip of intersections were drillholes on adjacent sections intersected mineralisation at deeper depths. Along strike, mineralisation was extrapolated to half the drill section spacing at the termination of lenses. GRADE ESTIMATION • Block estimation and geostatistical analysis was completed within the GS3M software package of FSSI Australia. • Block size was defined by the nature of the orebody, drillhole spacing and the selective mining unit (SMU).

Criteria	Commentary

Model Min. Coords:	317880.00mE	6114600.00mN	704.00mRL
Model Max. Coords:	318500.00mE	6115260.00mN	1232.00mRL
Panel Size:	10.00mE	20.00mN	12.00mRL
Number of Panels:	62E	33N	44RL
Discretization Pts:	3E	5N	4RL
No. of Domains:	7		

- Multiple Indicator Kriging (MIK) was used to estimate copper, silver, sulphur and gold grades.
- Bismuth was estimated from a regression algorithm of block Cu and block Bi due to a lack of Bi data covering the entire area
- The mineralised domain boundaries were used as “soft” boundaries for interpolation.
- Two metre assay composites were used for interpolation
- The variography, conditional statistics for each domain for each metal were generated from the domained 2 m composites.
- Three estimation passes were employed for all domains, each subsequent pass having an increased search size. These search parameters were determined using drill hole density and variography as a guide.

	Measured	Indicated	Inferred
East	12	20	20
North	42	70	70
Elev	42	70	70
Min Octants	4	4	2
Min Composites	16	16	8
Max Composites	48	48	48
Search Rotation	Strike is 020deg NE, Dip is -75deg East		
Block Rotation	none		

- Each element within each domain was analysed for the presence of extreme high values and top cut values were applied on an element and

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>domain basis where applicable. Top cut values were determined using basic statistical analysis, assessment of log probability plots and spatial evaluation of high outliers.
• Validation of the estimation was undertaken using basic statistical evaluation of the mean block grades against mean declustered drillhole grades. These checks indicate that there is no material error within the estimate.
• Reconciliation against previous Mineral Resource estimates and the pit production data has been carried out for the period 1 January 2016 to 30 April 2016. The model estimates 8% less tonnes with a copper grade 7% lower than recorded by mine production for the same area at a 0.2% copper cut-off over 0.8Mt
• Reconciliation against the Kavanagh stage 1 pit, shows the new resource model to estimate 3% less tonnes and 9% lower grade compared to production at a 0.2% COG over 3.69Mt of ore mined
• Reconciliation work on Mineral Resource against Mill production is still ongoing.</td></tr>
<tr><td>Moisture</td><td>• Tonnages are estimated on a dry basis.</td></tr>
<tr><td>Cut-off parameters</td><td>• A 0.2% copper cut-off has been applied for reporting of the Mineral Resource. This grade is considered by Hillgrove Resources to be the economically viable lower cut-off grade.</td></tr>
<tr><td>Mining factors or assumptions</td><td>• The Kanmantoo Copper deposit is currently mined by open pit method.
• The MIK estimation method reports a “recoverable resource” through the use of a volume-variance correction factor derived from the volume of the mining block and the sample variograms. The resultant estimation model accounts for internal dilution, the dilution due to mining selectivity and the dilution due to the Information Effect of the nominated sampling pattern.
<table>
<tr><th colspan="6">CHANGE OF SUPPORT PARAMETERS FOR EACH DOMAIN</th></tr>
<tr><td>DOMAIN</td><td>B/D VAR-RATIO</td><td>B/P VAR-RATIO</td><td>INFO EFFECT</td><td>METHOD</td><td>S/P*INF0</td></tr>
<tr><td>Dom1</td><td>0.327</td><td>0.19</td><td>0.805</td><td>Lognorm</td><td>0.263</td></tr>
<tr><td>Dom2</td><td>0.468</td><td>0.243</td><td>0.784</td><td>Lognorm</td><td>0.367</td></tr>
<tr><td>Dom3</td><td>0.326</td><td>0.188</td><td>0.765</td><td>Lognorm</td><td>0.249</td></tr>
<tr><td>Dom4</td><td>0.253</td><td>0.164</td><td>0.692</td><td>Lognorm</td><td>0.175</td></tr>
<tr><td>Dom5</td><td>0.265</td><td>0.166</td><td>0.74</td><td>Lognorm</td><td>0.196</td></tr>
<tr><td>Dom6</td><td>0.385</td><td>0.207</td><td>0.79</td><td>Lognorm</td><td>0.304</td></tr>
<tr><td>Dom7</td><td>0.405</td><td>0.246</td><td>0.858</td><td>Lognorm</td><td>0.347</td></tr>
<tr><td colspan="2">Grade Control Sampling Pattern</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Sample Spacing</td><td>X: 4.0</td><td>Y: 4.0</td><td>Z: 6.0</td><td colspan="2">staggered pattern</td></tr>
</table>
• The estimated resource is spatially limited to the currently permitted mine perimeter, and to the same depth as previously reported as “potentially economic” to the ASX 30 August 2013.</td></tr>
</table>

Criteria	Commentary
Metallurgical factors or assumptions	• No metallurgical assumptions have been included in the resource • The Kanmantoo Copper Mine Processing Plant has been processing the Kanmantoo Ore for approximately 4.5 years with as expected recoveries for copper, gold and silver. • Grade control is based on Copper grade only – there is no copper equivalent used in mine selectivity or COG calculation
Environmental factors or assumptions	• Waste dumping areas and tailing storage facilities (TSFs) are already approved and constructed within the current mining lease. • Both the mine and processing plant are in full operation under full regulatory approved environmental licences and permits.
Bulk density	• Wax-coated Archimedes method density sample results were used to calculate density values for this Mineral Resource. The density results for 386 half core samples (a mixture of NQ and HQ in size) were available for density calculation. • The density data results were divided by both domain and oxidation state and the datasets were investigated for outliers and/or suspect values. Any suspect values were examined in terms of their lithology and removed if it was deemed appropriate. The mean of the dataset was then calculated and applied to blocks within the block model on the basis of oxidation state and domain. Density values were assigned to the model once the estimation process was complete. • These Bulk Density values have been used for 4.5 years and reconcile against mine production and milling
Classification	• The Mineral Resource has been classified into the confidence categories of Measured, Indicated, and Inferred according to geological confidence and reflect the Competent Person's view on the deposit. This confidence is based on the density of copper assay data, continuity of mineralisation and knowledge of the orebody gained during recent mining activities. Other factors considered were the estimation pass associated with the block estimation. • Measured resources have an average drillhole intercept spacing of 20 by 20m. • Indicated resources have an average drillhole intercept spacing of between 20 and 40m. • Inferred resources have an average drillhole intercept spacing over 40m. • Resource classification categories were applied manually using Block Maths on an object by object on completion of the estimation. This manual method allowed each of the 95 objects to be visually inspected individually and a review of the geological confidence to be carried out.
Audits or	• An internal review of this Mineral Resource was completed in May 2016 and the model was considered suitable for external reporting.

Criteria	Commentary
reviews	
Discussion of relative accuracy/ confidence	• Reconciliation against previous Mineral Resource estimates and the pit production data has been carried out for the period 1 January 2016 to 30 April 2016. The model estimates 8% less tonnes with a copper grade 7% lower than recorded by mine production for the same area at a 0.2% copper cut-off over 0.8Mt • Reconciliation against the Kavanagh stage 1 pit, shows the new resource model to estimate 3% less tonnes and 9% lower grade compared to production at a 0.2% COG over 3.69Mt of ore mined • Reconciliation work on Mineral Resource against Mill production is still ongoing.