



Hillgrove Resources Limited (ASX: HGO) reports for the quarter ended 30 June 2018

### **HIGHLIGHTS**

**Operations** – a strong copper production quarter with:

- Quarterly copper production of 5,642 tonnes (the third highest recorded quarter) and quarterly gold production of 2,042 ounces, despite 10 days unplanned crusher downtime;
- Copper production for June of 2,275 tonnes, the second highest month since operations commenced. July production will also exceed 2,100 tonnes;
- The strip ratio of 1:1 tonne of waste to ore resulted in a build-up of ore stockpiles to 2.3M tonnes at quarter end, equivalent to 8 months of processing;
- The stockpiles have enabled the continued preferential treatment of higher grade ore, increasing feed grade for the quarter to 0.82%Cu (a 28% increase over the previous quarter); and
- The mining rate reduced, increasing mining unit costs due to a combination of 16 days of weather related delays and reduced efficiency associated with a diminishing mine footprint.

**Growth Opportunities** – work on the growth opportunities continues, including:

- Kanappa & Mt Rhine the IP electrical surveys were completed, with results indicating there are >1km long chargeability anomalies on both projects that are coincident with both the soil copper geochemical and magnetic anomalies.
- Kanappa diamond drilling of the central portion of the zone is planned for mid-September; and
- Kanmantoo Underground project during the quarter preliminary design work for the Kavanagh and Nugent zones was completed and permitting was achieved for the Nugent zone. A magneto-telluric (MT) survey is underway to map the down-dip continuation of the major structures.

**Fixed Pricing** – the Company has fixed the Australian Dollar copper price for 15,500 tonnes at quarter end, at an average price of \$9,009 per tonne after margins, compared to the current spot price of \$8,420.

# **LOOKING FORWARD**

**2018 Guidance** – copper and gold production, C1 cost, capital and exploration expenditure remain unchanged.

**Mining Costs** – as the pit gets deeper, the work area will become smaller, and may reduce mining efficiency, increasing unit costs, but decreasing total mining costs.

**Pumped Hydro** – the formal sale process is underway with non-binding bids due in the Sep 2018 quarter.

**Cashflow** – forecast strong copper production combined with the fixed pricing will allow the Company to continue to generate surplus cash to reduce its liabilities.

# MANAGING DIRECTOR'S STATEMENT

The pit has continued to progress despite the tighter working areas, as the pit is now in the final year of mining. The completion of the Giant Pit cutback and the associated reduction in strip ratio has led to a significant increase in the ore mined, allowing the Company to:

- Continue the accumulation of ore stockpiles, which grew from 1.3M tonnes to 2.3M tonnes during the quarter; and
- Preferentially treating the higher grade ores led to the third highest quarterly production (including the second highest monthly production) recorded during the life of the mine.

These achievements were pleasing, especially considering 10 days of production were lost in May following the unplanned maintenance for the bearing replacement in the crusher. This higher production has been supported by the strong fixed pricing book, at levels well above the spot prices at the time of writing – with circa 15,500 tonnes available at an average copper price of \$9,009 per tonne after margins.



Looking forward, stockpiles are expected to continue to increase until mid-2019 when mining ceases, and as a result, mining costs are expected to reduce dramatically. At this time, we expect to have sufficient stockpiles to continue processing until the third quarter of 2020 and we should see cash generation increase as we will be operating on a lower cash cost during this period.

In the short term, our aim is to use this cash to continue reducing creditors to normal terms and in the longer term, build cash balances. We will continue to evaluate the best use of future cash balances and are focussed on delivering the best result for the Company and shareholders.

While our goal is to return cash to shareholders through fully franked dividends, at the same time we also continue to prudently progress our exploration projects at Kanappa, Mt Rhine and other regional projects. These projects may represent considerable value opportunities, as they can utilise the valuable existing processing facilities beyond 2020 (when processing is due to be completed from the existing Kanmantoo Open Pit). These projects will be rigorously assessed against the base case of returning cash back to shareholders.

During the quarter and following strong interest from a number of parties in the Pumped Hydro Energy Storage (PHES) project, we commenced the formal process to seek offers for the project. The Board is pleased with the response to the process, the aim of which is to unlock the value inherent in this project post the completion of mining at Kanmantoo. Non-binding indicative offers are expected in the September quarter.

2018 production and cost guidance remains unchanged.

# KANMANTOO COPPER MINE, SOUTH AUSTRALIA

Mining Lease 6345 (Hillgrove 100%)

## **Safety**

There were two incidents recorded in the quarter, which has meant that the Company has improved the 12 month TRIFR – from 21.3 in July 2017 to 17.2 at the end of the June 2018 quarter.

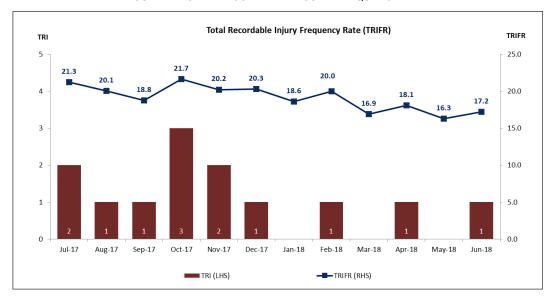


FIGURE 1. TOTAL RECORDABLE INJURY FREQUENCY RATE

# **Operations Overview**

Following completion of the Giant Pit cutback, the strip ratio has fallen to the lowest since operations began, at 1:1 tonne of waste to ore, which increased ore stockpiles to over 2.3M tonnes at the close of the quarter (Table 1). The increasing ore inventory increases business resilience by allowing stockpiles to be processed if there are any unplanned mining interruptions, and copper production to be optimised by enabling high grade ore to be selectively processed.

TABLE I. KANIMANTOO COPPER MINE PRODUCTION STATISTICS							
			CY17 12 MTHS	MAR-18 3 MTHS	JUN-18 3 MTHS	CY18 6 MTHS	
Ore to ROM from Pit		kt	3,915	1,636	1,843	3,479	
Mined Waste		kt	14,388	2,571	1,889	4,460	
<b>Total Tonnes Mined</b>		kt	18,303	4,207	3,733	7,940	
Closing Ore Stocks		kt	524	1,257	2,331	2,331	
Mining Grade		%	0.48	0.47	0.54	0.51	
Ore Milled		kt	3,427	876	747	1,623	
Milled Grade	- Cu	%	0.48	0.64	0.82	0.72	
	- Au	g/t	0.12	0.12	0.15	0.13	
Recovery	- Cu	%	90.6	91.4	92.5	92.0	
	- Au	%	51.8	54.3	55.5	54.9	
Cu Concentrate Produ	iced	Dry mt	67,265	21,653	24,023	45,676	
Concentrate Grade	- Cu	%	22.0	23.7	23.5	23.6	
	- Au	g/t	3.1	2.5	2.6	2.6	
Contained Metal in Con Cu		t	14,802	5,122	5,642	10,764	
	- Au	oz	6,785	1,770	2,042	3,812	
	- Ag	oz	110,551	36,996	40,139	77,135	
Total Concentrate Sold		Dry mt	65,161	23,395	23,335	46,730	

TABLE 1. KANMANTOO COPPER MINE PRODUCTION STATISTICS

Rehabilitation continued during the quarter to establish vegetation linkages between site and off-site properties as part of closure obligations (Figure 2), bringing the areas where rehabilitation has commenced to 62 hectares. Over the next 9 months, the majority of the earthworks associated with the rehabilitation obligations will be completed to reduce the Company's rehabilitation liability and obligations.

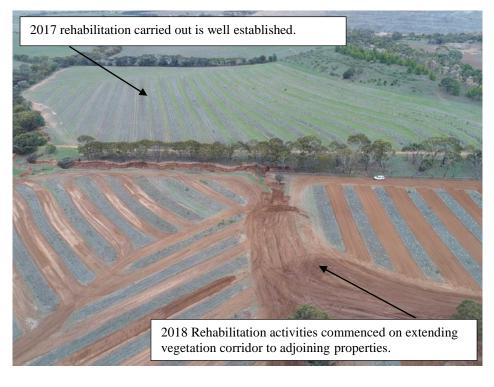


FIGURE 2. REHABILITATION

Mining production was 1.21M BCM in the quarter, down 11% on the prior quarter (refer Figure 3), predominantly due to the increasingly tight working area as the pit approaches the final year of mining and also due to weather delays. As the pit gets deeper, the mining efficiency is expected to reduce further, as the work area eventually becomes too small to manage load/haul and drill/blast activities concurrently.



FIGURE 3. KANMANTOO QUARTERLY MINING PEFORMANCE

Mill throughput for the quarter was 747k tonnes at a run time of 85.2% (refer Figure 4), reflecting the 10 day downtime event in May to rebuild the crusher and rotate the mill girth gear (96.0% excluding this downtime). The copper recovery rate for the quarter was 92.5%, which was an increase relative to the previous quarter, in line with the increase in the ore feed grade processed. Total production for the quarter was 24,023 DMT of concentrate, containing 5,642 tonnes of copper metal and 2,042 ounces of gold. Copper production (refer Figure 5) experienced its highest quarterly production since Q2 2014, a reflection of the completion of the Giant Pit cutback and the availability of higher grade material, and a significant achievement given the 10 day mill outage.

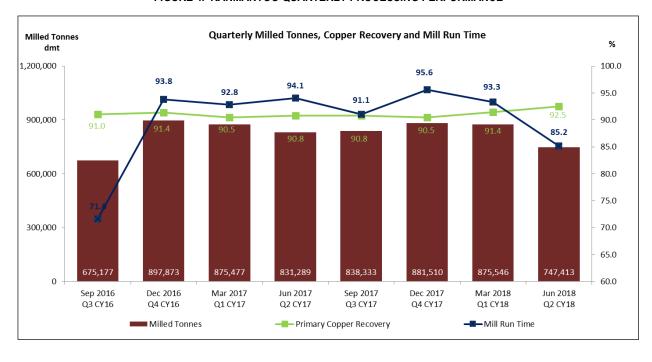
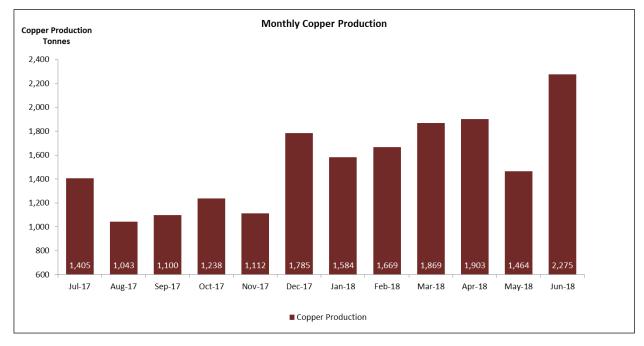


FIGURE 4. KANMANTOO QUARTERLY PROCESSING PERFORMANCE





#### Costs

C1 unit cost for the June quarter was US\$2.20/lb, with the increase reflecting the lower ore inventory adjustment credit (as a result of mined ore being added to long term stockpiles) and higher deferred mining costs (as the pit is now at a bench level whereby mining costs will no longer be deferred to the balance sheet and will now be allocated back from the balance sheet to operating costs), despite the benefit of higher production.

TABLE 2. KANMANTOO COPPER MINE COSTS (USC/lb)

US cents per lb	CY17	MAR-18 QTR	JUN-18 QTR	CY18 YTD
	12 MTHS	3 MTHS	3 MTHS	6 MTHS
Total Mining Cost	195	165	138	151
Deferred Mining	-36	6	42	24
Pre-strip	-3	-	-	-
Ore Inventory Adjustment	-13	-66	-45	-55
Mining Costs	143	105	135	120
Processing Costs	62	47	47	47
Other Direct Cash Costs	12	9	9	9
Total Onsite Costs	217	161	191	176
Transport & Shipping	13	13	15	14
Treatment, Refining & Smelter Charges	34	37	39	38
Total Offsite Costs	47	50	54	52
Precious Metals Credits	-31	-25	-25	-25
Total Direct Operating Costs (C1 Cash Costs)	233	186	220	203
Royalties	11	15	13	14
D&A	32	26	25	26
TOTAL COSTS	276	227	258	243

### **NOTES TO TABLE 2:**

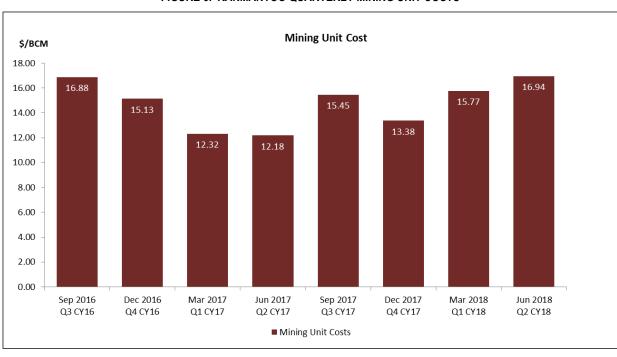
**Deferred Mining:** Within each pit, the cost of higher waste benches, proportional to the copper contained in the ore, is normalised for the impact of strip ratios and copper grades over the life of specific pits.

**Pre-Strip:** Upper levels of pits where the strip ratio is greater than 10:1 (waste:ore) are capitalised and amortised over the life of the mine based on metal.

Ore Inventory Adjustment: Mining costs per tonne of ore added to (-'ve) or processed from (+'ve) long term stockpiles.

Mining unit costs increased from \$15.77 per BCM in the March 2018 quarter to \$16.94 per BCM in the June 2018 quarter (refer Figure 6). This was driven by the lower mining movements as a result of the tighter working conditions and more rain delays in winter.

FIGURE 6. KANMANTOO QUARTERLY MINING UNIT COSTS



Processing unit costs have increased in the quarter (refer Figure 7), driven by the 10 day crusher shut as announced to the market in May 2018 – which led to additional costs as well as lower throughput. Going forward, processing costs are expected to revert back to the consistent cost profile experienced in the prior quarters.

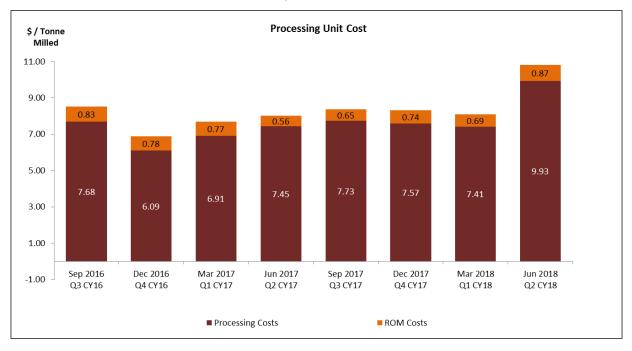


FIGURE 7. KANMANTOO QUARTERLY PROCESSING UNIT COSTS

### Revenue

Revenue for the quarter (including precious metals credits and amortised hedge gains) was \$49.6 million, with the average realised price for copper metal sold being \$8,984 per tonne (up from \$8,501 last quarter). This average realised price increased significantly, reflecting the deliveries into the strong fixed price book as well as the higher prevailing spot prices in the second quarter of 2018.

Since quarter end, there has been a weakening in the copper price which has fallen from a high of \$9,635 for the quarter to a low of \$8,204 in July 2018 and was \$8,420/tonne, at the time of writing this report.

### **GROWTH OPPORTUNITIES**

## **Kanmantoo Underground Copper Mine Growth Opportunity**

The Company has previously announced an Exploration Target<sup>1</sup> at the Kanmantoo Copper Mine of between five and ten million tonnes, with a target grade of between 1.7% and 2.2% Cu and 0.4g/t to 1.0g/t Au, containing approximately 80,000 tonnes to 160,000 tonnes of copper metal and 60,000 ounces to 120,000 ounces of gold. The Exploration Target comprises nine different underground opportunities and the first of the targets able to be exploited is Nugent Underground, below the Nugent open pit which was mined by the Company in 2015.

During the quarter, the Regulator approved the proposed underground exploration drive below the Nugent Pit.

The underground development will be evaluated against the outcome of the PHES once the formal process is completed.

## **Near Mine Growth Opportunities (Kanmantoo Surrounds)**

Around the Kanmantoo mine environs, a magneto-telluric (MT) survey was completed during the quarter. This survey is to assist with the assessment of the down-dip continuation of the major structures controlling the Kanmantoo copper-gold mineralisation. The MT data is currently being processed and results are expected next quarter.

In addition, previously drilled holes south of the open pit are being re-evaluated for their structural characteristics, and therefore opportunity for as yet un-drilled underground targets. None of these targets have been followed up with further drilling since originally drilled and reported in March 2010. Each of these holes are drilled on separate lode systems that have been mapped for over 1km in strike length.

KTRC742 5m @ 2.5% Cu, 0.8g/t Au from 13m downhole KTRC757 17m @ 0.95% Cu, 0.6g/t Au from 48m downhole KTRC264 18m @ 1.3% Cu, 0.1g/t Au from 20m downhole KTRC255 14m @ 0.6% Cu, 0.3g/t Au from 8m downhole

### **Regional Growth Opportunities (Kanappa)**

At Kanappa, the IP electrical survey was completed and modelled, with the results indicating that there is a 2km long chargeability anomaly that is coincident with the soil copper geochemical anomaly as well as the magnetic anomaly (see Figure 8 below). This anomaly is open to the south.

Diamond drilling of the central portion of the zone is planned for mid-September once all the relevant landowner and Government approvals have been received.

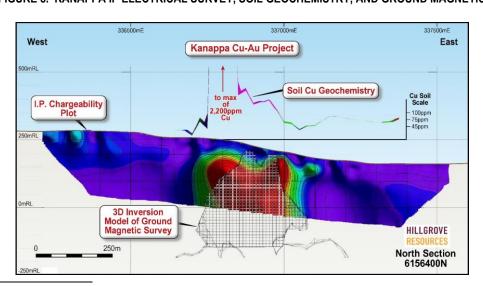


FIGURE 8. KANAPPA IP ELECTRICAL SURVEY, SOIL GEOCHEMISTRY, AND GROUND MAGNETICS

<sup>1</sup> The Exploration Target is conceptual in nature as there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource under the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code" (JORC 2012).

# **Regional Growth Opportunities (Mt Rhine)**

At the Mt Rhine project, an IP electrical survey was also completed during the quarter and modelled. The IP chargeability anomaly is over 1.7kms long and open both to the north and the south. The zone is broadly coincident with the copper-gold geochemistry and magnetic anomalism.

The Mt Rhine target area has a much higher gold tenor compared to the Kanappa exploration target and further work is required to integrate the gold targets with these copper anomalies for drill hole targeting.

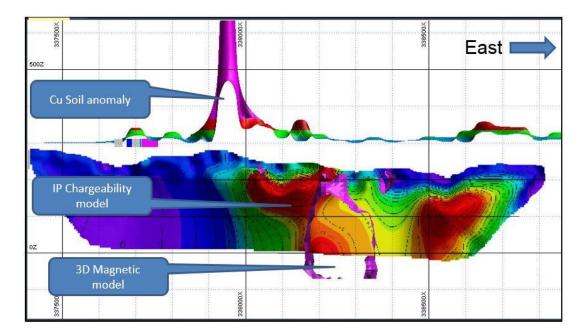


FIGURE 9. MT RHINE IP ELECTRICAL SURVEY, SOIL GEOCHEMISTRY, AND GROUND MAGNETICS

## **Regional Growth Opportunities (Coonalpyn)**

The Company has also expanded its exploration footprint with the application for four Exploration Licences in the Coonalpyn district along the Padthaway Magmatic Ridge. This area is prospective for significant coppergold mineralisation as evidenced by past copper and molybdenum discoveries within the Hillgrove tenements.

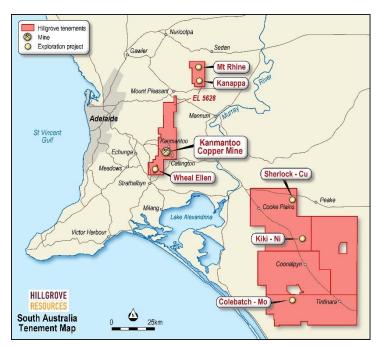


FIGURE 10. COONALPYN TENEMENT LOCATION

### PUMPED HYDRO ENERGY STORAGE OPPORTUNITY

The end of mine Kanmantoo Pit presents a potential PHES opportunity due to the difference in elevation between the base of the pit and the upper reservoir (>400m), its proximity to the South Australian Electricity Grid, water availability, its land holding on surrounding properties and the South Australian electricity market requirements. The PHES will help address the SA challenges emanating from reliance on renewable energy, by adding system stability and storage, and also by providing opportunities for associated projects, such as solar.

Hillgrove does not consider the PHES a core project and based on the strong interest from a number of parties in the project, a formal process to realise the maximum value inherent in the project was commenced during the quarter. Non-binding indicative offers are expected during the September 2018 quarter.

### HILLGROVE CORPORATE

#### Guidance

2018 guidance remains unchanged for copper production, gold production, C1 costs, exploration capex, and capital projects.

CY18	Initial Guidance	Updated Guidance
Copper produced	22,000 to 24,000 tonnes	Unchanged
Gold produced	2,500 to 3,500 ounces	Unchanged <sup>(1)</sup>
C1 costs	US\$2.00 to US\$2.25 (at 0.78 exchange rate)	Unchanged
Exploration capex	\$1.8 to \$2.5 million	Unchanged
Capital projects	\$2.6 to \$3.0 million	Unchanged

<sup>(1)</sup> While we will exceed gold production, the increase is not expected to be material as the ore processed in the remainder of the year will have a much lower gold grade than the ore processed in the first half of the year.

#### **Petrobond**

In June 2018, the Company negotiated a replacement \$2.7 million PetroBond with Lombard Insurance. The bond allows the Company to continue to receive normal creditor terms with its fuel supplier. The bond is secured and has been provided on the same terms as the previous bond. A replacement bond was required as the previous bond provider was placed into interim liquidation.

## **Fixed Pricing**

The Company continues to place and consume the fixed pricing available to it as part of the active management of the Australian Dollar copper price exposure. As at the end of the quarter, it had circa 15,500 tonnes of fixed pricing available at an average copper price of \$9,009 per tonne after margins.

### INDONESIAN GOLD AND GOLD/COPPER ASSETS

The Company is continuing to progress its withdrawal from Indonesia.

The Indonesian projects have been on care and maintenance since 2013 and the carrying value of both projects were fully impaired in 2015.

CORPORATE INFORMATION					
Issued Share Capital at 30 June 2018					
Ordinary shares	577,092,118				
Employee Performance Rights	32,600,000				
Share price activity for the Quarter					
High	0.096				
Low	0.075				
Last (29 June 2018)	0.082				

SHARE REGISTRY	REGISTERED OFFICE
Boardroom Limited GPO Box 3993 Sydney NSW 2001, Australia F: +61 2 9290 9655 T: (within Australia) 1300 737 760 T: (outside Australia) +61 2 9290 9600	Hillgrove Resources Limited Ground Floor 5-7 King William Road Unley, South Australia, Australia E: info@hillgroveresources.com.au T: +61 8 7070 1698

## Mineral Resource Estimate for All Deposits at 31 December 2017

Mine	JORC 2012 Classification	Tonnage (Mt)	Cu (%)	Au (g/t)	Ag (g/t)	Cu Metal (kt)
Kanmantoo	Measured	9.5	0.6	0.1	1.2	59
Copper Mine,	Indicated	10.1	0.6	0.1	1.5	62
All Deposits	Inferred	12.3	0.6	0.1	1.0	67
	Total	31.8	0.6	0.1	1.2	188

## Mineral Resource Estimate for Giant Pit Only at 31 December 2017

Mine	JORC 2012	Tonnage	Cu	Au	Ag	Cu Metal
	Classification	(Mt)	(%)	(g/t)	(g/t)	(kt)
Kanmantoo	Measured	7.5	0.6	0.1	1.2	44
Copper Mine,	Indicated	4.5	0.5	0.1	1.0	23
Giant Pit Only	Inferred	9.6	0.6	0.1	0.9	53
	Total	21.6	0.6	0.1	1.0	120

### Ore Reserve Estimate at 31 December 2017

Mine	JORC 2012 Classification	Tonnage (Mt)	Cu (%)	Au (g/t)	Ag (g/t)	Cu Metal (kt)
Kanmantoo	Proved	4.9	0.6	0.1	1.2	31
Copper Mine	Probable	1.1	0.5	0.1	0.9	6
	Total	6.1	0.6	0.1	1.1	37

## **Competent Person's Statement**

The Ore Reserve and Mineral Resource estimates were prepared by Competent Persons in accordance with the JORC Code 2012. Further information on the Kanmantoo Mineral Resources and Ore Reserves is available in the Hillgrove Updated Mineral Resource and Ore Reserve Estimate released to the ASX on 18 October 2016, which is also available on the Hillgrove Resources website at www.hillgroveresources.com.au. Hillgrove Resources confirms that it is not aware of any new information or data that materially affects the information included in that market announcement and, in the case of estimates of Mineral Resources and Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Hillgrove Resources confirms that the form and context, in which the findings of the Competent Persons (Peter Rolley in relation to Exploration Results, Peter Rolley and Michaela Wright in relation to the Mineral Resource Estimates and Lachlan Wallace in relation to the Ore Reserve Estimates) are presented, have not been materially modified from the original market announcement. Mr Rolley and Mr Wallace are employees of Hillgrove Resources and Ms Wright is a former employee.

### For more information contact:

Steve McClare, Managing Director, Tel: +61 8 7070 1698