

# **Red River Commences Production at Hillgrove Gold Operation**

## Highlights:

- Processing has commenced at the Hillgrove Gold Operation
- Bakers Creek Stockpile mining and trucking activities commenced, with first ore delivered to Hillgrove ROM Pad on 23 December
- First ore processed through the Hillgrove Mill on 29 December plant is ramping up to steady state production
- Workforce increased to 50+

Red River Resources Limited (ASX: RVR) is pleased to announce that it has started production at its Hillgrove Gold Operation in New South Wales.

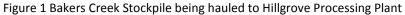






Figure 2 Hillgrove ROM Pad



Figure 3 Feeding the primary crusher



Figure 4 Crushed ore being fed into ore bin





Figure 5 Ore being fed into ball mill

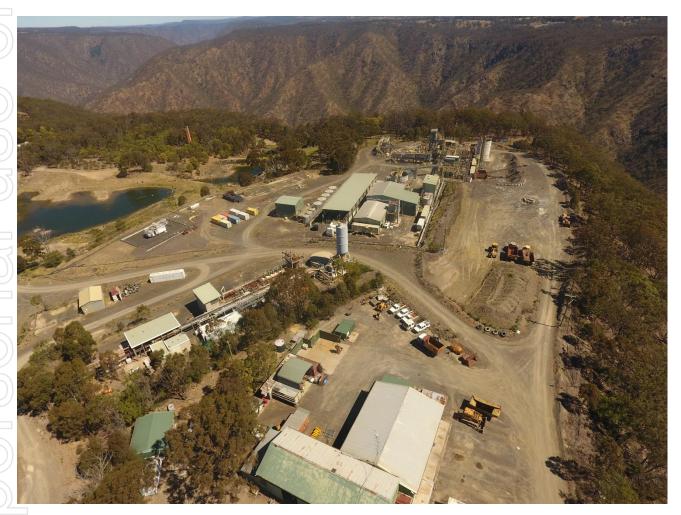




### **Hillgrove Gold Operation**

The Hillgrove Gold Operation is about 30km from Armidale in New South Wales. To date, Hillgrove has produced more than 730,000 ounces of gold (in bullion and concentrates), more than 50,000 tonnes of antimony (as metal and in concentrates) plus material amounts of by-product tungsten (in concentrates). The Hillgrove Gold Project has a substantial high-grade JORC 2012 Compliant Mineral Resource of 5.0Mt @ 4.3 g/t Au & 1.5% Sb (6.4 g/t Au Eq.) (692koz gold & 75kt antimony).

Figure 6 Hillgrove Gold Operation



The Hillgrove site includes a 250ktpa capacity processing plant, comprising a selective flotation circuit (capable of producing antimony-gold and refractory gold concentrates), an antimony leach/EW/refining & casting plant, a gold cyanide leach circuit & gold room plus a pressure oxidation circuit. The site also has a fully HDPE (high-density polyethylene) lined modern tailing storage facility, which was constructed in 2006 and has approximately two years of production storage capacity.

All of Hillgrove's electricity requirements are sourced from a 66kva grid connected power supply from Ergon Energy with 11kva site power reticulation. Water is sourced from storage dams and underground workings.

Hillgrove has all the office facilities required for operations, including an administration office, mining operations offices, maintenance offices, workshops (heavy vehicle, light vehicle and boilermaker's workshops), process plant offices, metallurgical laboratory building, first aid building, stores warehouse and core shed and yard.

The Hillgrove Gold Operation as a residential site, with the majority of the workforce residing in Armidale and the surrounding area.



Red River controls the known Hillgrove Mineral Field, which hosts more than 200 known gold-antimony (Au-Sb) deposits. The majority of these deposits are steeply dipping vein systems within NW to WNW striking fracture systems, where the vein systems transition to gold dominant at depth with increasing levels of free gold. All known vein systems are open at depth.

Figure 7 Hillgrove Mineral Field

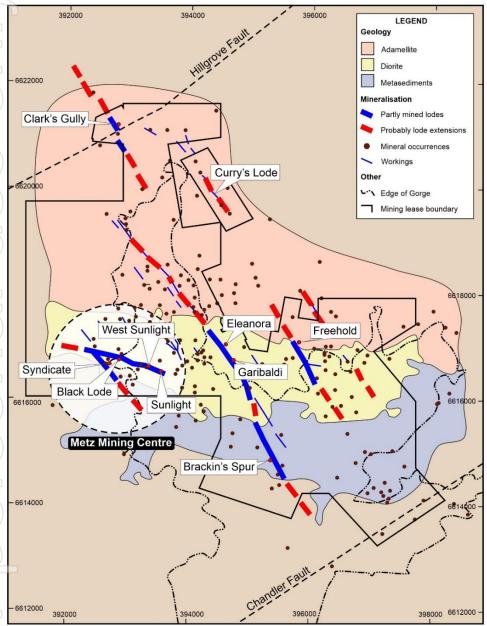




Table 1 Hillgrove Gold Project Mineral Resource

Lode	Classification	Tonnes	Gold	Antimony	Gold Equivalent (Au Eq.)	Contained Gold	Containe Antimon
		(kt)	(g/t)	(%)	(g/t)	(koz Au)	(kt Sb)
Blacklode &	Measured	-	-	-	-	-	-
Sunlight	Indicated	1,511	5.3	1.3	7.1	255	20
	Inferred	1,136	3.6	0.9	4.9	131	10
	Total	2,647	4.5	1.1	6.2	387	30
Brackin's Spur	Measured	73	5.1	0.9	6.2	12	1
	Indicated	640	4.2	1.8	6.9	86	12
	Inferred	870	4.8	1.3	6.5	134	11
	Total	1,583	4.6	1.5	6.6	232	24
Clark's Gully	Measured	170	1.9	4.2	9.0	10	7
	Indicated	96	2.1	3.1	7.3	6	3
	Inferred	0	0.8	3.0	5.8	0	0
	Total	266	2.0	3.8	8.4	16	10
Syndicate	Measured	199	4.5	4.5	10.9	29	9
	Indicated	96	2.5	2.4	5.9	8	2
	Inferred	23	3.6	0.4	4.1	3	0
	Total	318	3.8	3.6	8.9	39	11
Bakers Creek Stockpile	Measured	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-
	Inferred	225	2.5	-	2.5	18	-
	Total	225	2.5	-	2.5	18	-
Total	Measured	442	3.6	3.8	9.4	51	17
	Indicated	2,343	4.7	1.6	7.0	355	37
	Inferred	2,255	4.0	1.0	5.3	286	21
	Total	5,039	4.3	1.5	6.4	692	75
Source: Red Ri Brackin's Spur Source: AMC C Tonnages and	ver Resources Lim & Clark's Gully Mi Consultants Pty. Lt grades are rounde nt (Au Eq.) has bee	ited 17 <sup>th</sup> Aug neral Resour d. Hillgrove N ed. Discrepan en calculated	ust 2020 ces are es Ilineral Re cies in tot using the	timated at a c source Estima als may exist o metal selling p		Au Eq.	ptions



### **About Red River Resources (ASX: RVR)**

RVR is seeking to build a multi-asset operating business focused on base and precious metals with the objective of delivering prosperity through lean and clever resource development.

RVR's foundation asset is the Thalanga Base Metal Operation in Northern Queensland, which was acquired in 2014 and where RVR commenced copper, lead and zinc concentrate production in September 2017.

RVR has commenced production at the high-grade Hillgrove Gold Operation in New South Wales which was acquired in 2019. The Hillgrove Operation is a key part of RVR's strategy to build a multi-asset operating business focused on base and precious metals.

On behalf of the Board,

**Mel Palancian** 

**Managing Director** 

**Red River Resources Limited** 

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### Competent Persons Statement Syndicate, Blacklode & Sunlight Mineral Resource

The information in this report that relates to the estimation and reporting of the Syndicate, Blacklode & Sunlight Mineral Resource are based on and fairly represents, information and supporting documentation compiled by Mr Peter Carolan who is a Member of The Australasian Institute of Mining and Metallurgy and a full-time employee of Red River Resources Ltd.

Mr Carolan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Carolan consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. The information in this report that relates to database compilation, geological interpretation and mineralisation wireframing, project parameters and costs and overall supervision and direction of the Syndicate, Blacklode & Sunlight estimation is based on and fairly represents, information and supporting documentation compiled under the overall supervision and direction of Mr Carolan.

## Competent Persons Statement Brackin's Spur & Clark's Gully Mineral Resources

The information in this report that relates to the reporting of the Brackin's Spur & Clark's Gully Mineral Resource Estimate reported in accordance with the JORC 2012 Code is based on and fairly represents, information and supporting documentation compiled by Rodney Webster who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Webster is independent of Hillgrove Mines Pty Ltd. and an employee of AMC Consultants Pty Ltd. Mr Webster has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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'.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original report and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original report.



### **Gold Equivalent Calculation**

#### Syndicate, Blacklode & Sunlight Mineral Resources

It is Hillgrove Mines Pty Ltd opinion that all the elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold, based on previous mill production and sales. The gold equivalent (Au Eq.) and the cut-off are based on the following:

Metallurgical test work (carried out in 2016 and 2017) and mill production data demonstrate that total gravity & float recoveries of 91% Au and 86% Sb are achievable. The antimony recovery is applicable where Sb head grades are 1% or greater. The majority of the Sunlight Resource contains an antimony grade of less than 0.5% and therefore antimony recovery is not expected from this material.

The Au Eq. value was calculated using a gold price of US\$1,234 per oz and an antimony price of US\$ 5,650 per tonne where:

• Au Eq. (g/t) = (Au g/t) + (1.424 \* Sb %)

## **Brackin's Spur & Clark's Gully Mineral Resources**

It is Hillgrove Mines Pty Ltd opinion that all the elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold, based on previous mill production and sales. The gold equivalent (Au Eq.) and the cut-off are based on the following:

- Metallurgical test work (carried out in 2016 and 2017) and mill production data demonstrates that total gravity/float recoveries of 91% gold (Au) and 86% antimony (Sb) are achievable.
- Net smelter return calculations for the deposits indicate that Au Eq. grades above 4.8 g/t are economic, based on site costs, mill recoveries, off-site transportation and royalty costs.

Au Eq. was calculated based on commodity prices as of 18 July 2017. The individual grades, the assumed commodity prices and metal recoveries, and the Au Eq. formula are as follows:

- Au Eq. (g/t) = (Au g/t \* 91%) + (2.0 \* Sb % \* 86%)
  - Where 2.0 = (US\$7,950/100) / (US\$1,234/31.1035)
  - Gold price = US\$1,234/oz and gold recovery = 91%
- Antimony price = US\$7,950/tonne and antimony recovery = 86%