

## ASX Announcement

29 October 2019

ASX Code: RVR

# Quarterly Activities and Cash Flow Report for the period ending 30 September 2019

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### Quarter Highlights

- Acquisition of Hillgrove Gold Mine in NSW for \$4 million payable in Red River shares (23.0 million shares) completed at the end of August 2019
- Stopping commenced at Thalanga's Far West underground mine with production ramping up in Q2 FY20
- Shallow thick high grade mineralisation intersected in drill holes at Lione town.

### Thalanga Operations

- Zinc concentrate production of 6,199 DMT
- Lead concentrate production of 2,016 DMT
- Copper concentrate production of 1,372 DMT

### Development Activities

- Thalanga Far West underground mine development continues – 1,033 metres of lateral development and 164m of vertical development completed during Q1 FY2020. Total development surpassing 3,477m including 1,363m of decline development.
- The Far West decline is currently at 198m vertical depth. It has passed the 820 Level access and continues downwards to the 800 Level Access
- \$3.5 million in capital development, primarily at Far West
- \$0.9 million invested in exploration activities at Thalanga Operations

### Corporate

- \$20.9 million revenue generated from concentrate sales
- C1 cost of US\$ 0.76 per pound of payable zinc metal
- C2 cost of US\$ 1.14 per pound of payable zinc metal
- C3 cost of US\$ 1.35 per pound of payable zinc metal
- Thalanga Operations EBITDA of \$3.0 million
- Red River paid Queensland Government Mineral Royalty for FY19 (\$4.0 million). This royalty will now be paid quarterly
- Cash balance of \$17.3 million plus financial assets of \$12.9 million (cash backed security bond deposits) as at 30 September 2019.
- Red River's working capital facility of US\$10 million remains undrawn and the Company remains debt free.

## **1. SAFETY AND ENVIRONMENTAL PERFORMANCE**

### **1.1. Thalanga Operations Safety and Environmental Performance**

The site headcount during the period was 161 people. There were 70 full-time Red River Resources employees and an additional 91 contractors working in exploration and mining, with a total 104,108 hours worked. The Total Recordable Injury Frequency Rate (TRIFR) is zero for the year to date. There were zero medical treated injuries during the quarter, and zero Lost Time Injuries (LTIs) year to date.

### **1.2. Hillgrove Gold Mine Safety and Environmental Performance**

For the period from 27 August 2019 (completion of transaction) to 30 September 2019, the Hillgrove Gold Mines site headcount during the period was 5 people with 899 hours worked. The Total Recordable Injury Frequency Rate (TRIFR) is zero for the year to date. There were zero medical treated injuries during the quarter, and zero Lost Time Injuries (LTIs) year to date.

## 2. THALANGA OPERATION, QUEENSLAND

The Thalanga Operation is located approximately 65km southwest of Charters Towers in Northern Queensland and 200km from Townsville. Thalanga consists of a 650ktpa capacity processing plant which produces separate copper, lead and zinc concentrates with material precious metal (gold and silver) credits.

The Thalanga Operation is located in the highly prospective Cambro-Ordovician Mt Windsor Volcanic Belt which contains a number of known polymetallic (copper-lead-zinc +/- gold-silver) volcanic hosted massive sulphide (VHMS) deposits and gold deposits.

Red River acquired the Thalanga Operation in 2014 and commenced production from the West 45 deposit in 2017, with ore for the Thalanga Operation currently being sourced from the West 45 and Far West underground mines, with plans to develop the Lione town and Waterloo deposits to extend the future Thalanga operational life.

### 2.1. Operations Update

Thalanga Operations quarterly mine production was 100kt @ 0.4% Cu, 1.9% Pb, 3.9% Zn, 0.3 g/t Au & 56 g/t Ag (8.1% Zn Eq.) Thalanga Operations processed 99kt @ 0.5% Cu, 1.8% Pb, 3.6% Zn, 0.2g/t Au & 38 g/t Ag (7.9% Zn Eq.)

The main ore source for the quarter came from West 45 upper levels. Mining at West 45 is expected to be completed Q2 FY20 and then it will be placed into care and maintenance.

Production during the quarter was impacted by the secondary crusher shutdown. Mechanical repairs on the secondary crusher have been completed, and the secondary crusher was returned to service on 4th October. During the outage period, the Company successfully bypassed the secondary crusher, enabling approximately 20,000 wet metric tonnes of ore to be processed. Full process plant production has since resumed.

Stopping at Far West was delayed because the upper ore drives (860E, 880E & 900E levels) were extended to the East.

Zinc concentrate production decreased by 32% from Q4 FY19, with 6,199 DMT zinc concentrate produced. Lead concentrate production fell by 40% from Q4 FY19, with 2,016 DMT lead concentrate produced, and copper concentrate production fell by 24% from Q4 FY19 with 1,372 DMT copper concentrate produced.

Zinc recovery to zinc concentrate increased and averaged 90.3% for the period and a high-quality zinc concentrate grading 52.4% zinc was produced. Lead recovery to lead concentrate reduced slightly to 76.0%, and a high-quality lead concentrate grading 67.1% Pb, 3.9 g/t Au & 818 g/t Ag was produced.

Copper recovery to copper concentrate continued to maintain the high levels of the previous quarter, with an average recovery of 71.2% during the quarter to a high-quality copper concentrate grading 24.5% Cu, 4.5 g/t Au and 818 g/t Ag.

### 2.2. Concentrate Sales & Marketing

Red River sold 6,191 DMT zinc concentrate, 2,381 DMT lead concentrate and 1,425 DMT copper concentrate during the quarter. All concentrates were delivered under long term offtake agreements to Trafigura (zinc and lead concentrate) and Glencore (copper concentrate).

The Company continued to execute a short-term hedging program over the quotation period (QP) for sales of zinc and lead metal already produced. Typically, between 80 and 90% of the payable zinc and lead metal for each shipment of zinc and lead concentrates was hedged for the period from the issue of the first provisional sales invoice to the final settlement of the sale, which may occur between one and three months later. The QP hedges currently in place on the quarter's zinc and lead concentrate sales are US\$1.07 per pound of payable zinc metal and US\$0.89 per pound of payable lead metal.

Table 1 Thalanga Operations Summary for the September 2019 Quarter (Q1 FY20)

	Units	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	FY20 YTD
<b>Total Tonnes Mined</b>	kt	90	96	106	90	100	100
Copper grade	%	0.3	0.4	0.6	0.5	0.4	0.4
Lead grade	%	2.2	2.4	3.1	2.3	1.9	1.9
Zinc grade	%	5.0	5.4	5.8	5.0	3.9	3.9
Gold grade	g/t	0.2	0.2	0.3	0.2	0.3	0.3
Silver grade	g/t	31	39	53	43	36	36
Zinc equivalent grade	%	8.8	9.9	11.9	9.8	8.1	8.1
<b>Ore Processed</b>	kt	98	95	109	104	99	99
Copper grade	%	0.3	0.4	0.5	0.6	0.5	0.5
Lead grade	%	2.2	2.6	2.9	2.6	1.8	1.8
Zinc grade	%	4.3	5.2	5.5	5.4	3.6	3.6
Gold grade	g/t	0.1	0.2	0.3	0.3	0.2	0.2
Silver grade	g/t	30	46	55	56	38	38
Zinc equivalent grade	%	8.2	10.1	11.4	11.2	7.9	7.9
<b>Zinc Concentrate Produced</b>	DMT	6,800	7,695	8,952	9,057	6,199	6,199
Zinc grade	%	55.0	56.8	59.3	55.4	52.4	52.4
Zinc recovery	%	89.2	87.8	88.6	88.7	90.3	90.3
<b>Lead Concentrate Produced</b>	DMT	2,747	3,007	3,763	3,369	2,016	2,016
Lead grade	%	62.2	65.7	69.3	64.5	67.1	67.1
Copper grade	%	4.3	2.9	1.6	1.6	1.8	1.8
Gold grade	g/t	3.6	2.6	2.6	2.7	3.9	3.9
Silver grade	g/t	787	786	831	822	892	892
Lead recovery	%	80.1	80.6	81.9	79.7	76.0	76.0
Copper recovery	%	36.0	22.6	10.3	9.0	7.9	7.9
<b>Copper Concentrate Produced</b>	DMT	417	725	1,694	1,806	1,372	1,372
Copper grade	%	27.9	28.6	25.4	23.8	24.5	24.5
Gold grade	g/t	2.3	7.6	6.7	6.8	4.5	4.5
Silver grade	g/t	225	1,311	956	1,116	818	818
Copper recovery	%	35.1	54.1	73.5	71.1	71.2	71.2
<b>Zinc Concentrate Sold</b>	DMT	5,749	7,121	9,052	9,902	6,191	6,191
<b>Lead Concentrate Sold</b>	DMT	2,616	2,828	3,758	3,422	2,381	2,381
<b>Copper Concentrate Sold</b>	DMT	535	347	2,008	1,927	1,425	1,425
Table may include rounding errors							

### 2.3. Project Development

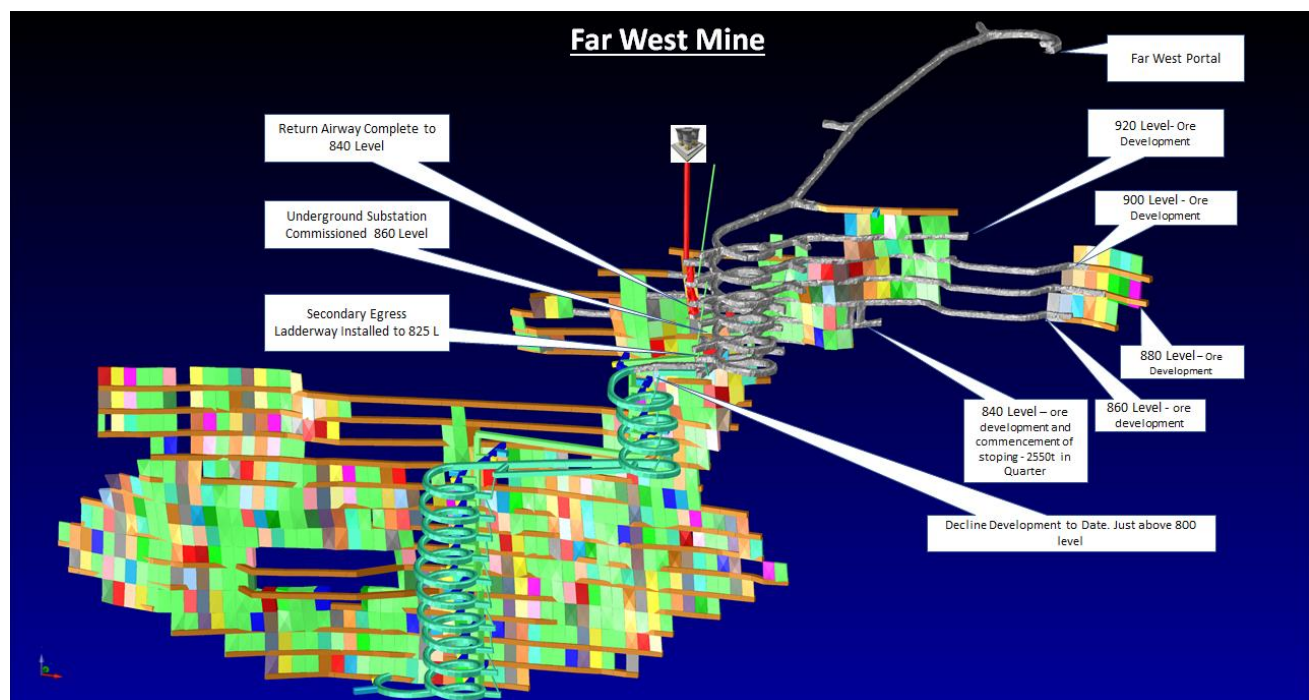
The first production stope at Far West (Far West 840-2902 Stope) was fired and stope ore from Far West was delivered to the Thalanga ROM Pad during the quarter. Ore production from Far West will progressively ramp up to over 300ktpa and become the dominant feed source for the Thalanga Operation. Far West is the second mine successfully developed and delivered by Red River at the Thalanga Operation over the past two years.

Red River continued to invest in the development of the Far West mine during the quarter, with 1,033m of lateral development:

- Far West decline development of 123m and vertical development of 164m (Return Air Rise was completed to 840 Level and Escape Ladderways to 825 Level)
- Total ore development of 668m
- Other lateral waste development of 242m

Total Far West development to date was 3,447m including 1,363m of decline development at quarter end. The Far West decline is currently at 198m vertical depth. It has passed the 820 Level access and continues downwards to the 800 Level Access

Figure 1 Far West Development



## 2.4. Exploration Activities

Red River holds approximately 580km<sup>2</sup> of exploration tenements in the highly prospective Mt Windsor Volcanic Belt in the Charters Towers Region on Northern Queensland. The tenement package is highly prospective for both volcanic hosted massive sulphide (VHMS) deposits and gold deposits.

Drilling continued at the Liontown Project during the quarter. The drilling program is designed to infill proposed mining areas, undertake geotechnical design assessment of conceptual mining, generate samples for additional metallurgical testwork and extend known mineralisation in the New Queen Lens, Main Lens and the Carrington Lode.

Material drilling results from the Liontown Drilling Program reported during the quarter are summarised in Table 2. For further information, refer to the ASX release dated 19 September 2019 “Liontown drilling delivers zones of thick high-grade copper, lead, zinc and gold mineralisation”).

Table 2 Liontown Drilling Program – Material Intersections

Target	Material Drill Intersection
New Queen Lens	LTD19002: 55.95m @ 0.2% Cu, 2.6% Pb, 5.8% Zn, 1.1 g/t Au & 12 g/t Ag, (9.7% Zn Eq.) from 39.85m down-hole LTDD19005: 51.30m @ 0.2% Cu, 2.0% Pb, 5.1% Zn, 1.2 g/t Au & 14 g/t Ag, (8.3% Zn Eq.) from 36.70m down-hole
Main Lens	LTDD19002: 4.70m @ 18.7% Zn Eq. from 182.6m down-hole and 4.12m @ 18.9% Zn Eq. from 234.50m down-hole LTDD19003: 3.98m @ 15.6% Zn Eq. from 132.50m down-hole
Carrington Lode	LTDD19001: 1.19m @ 5.0% Cu from 276.60m down-hole LTDD19004: 1.20m @ 3.6% Cu from 205.60m down-hole

### 3. HILLGROVE GOLD MINE, NEW SOUTH WALES

Red River announced the completion of the Hillgrove Gold Mine acquisition for \$4 million payable in Red River shares (23.0 million shares) on 27 August 2019. The Hillgrove Gold Mine acquisition is a key step to fulfilling Red River's strategy of building a multi-asset operating business focused on base and precious metals.

Material assets acquired as part of the transaction include:

- A 250ktpa processing plant capable of producing saleable gold and gold-antimony concentrates plus antimony alkali leach and electrowinning circuit, pressure oxidation (POX) plant, gold cyanide leach circuit and gold;
- Offices, warehouses, assay lab and maintenance facilities;
- Comprehensive underground mining fleet and surface vehicle fleet;
- Fully lined tailings storage facility with approximately 2 years capacity; and a
- \$4.3 million environmental bond

The Hillgrove Gold Mine is located approximately 30km from Armidale in New South Wales. Historic mining activity commenced at the site in 1857 and ceased in 1921 and recommenced in 1969.

Since 2004, over \$180 million has been invested in underground development, surface infrastructure and processing plant by Straits Resources Limited (2004 to 2009) and most recently by the current owner, Bracken Resources Pty Ltd ("Bracken") which acquired Hillgrove from Straits in 2013 for \$33.2 million (plus the replacement of \$3.9 million in environmental bonds provided by Straits). Bracken subsequently invested over \$40 million in upgrading and recommissioning Hillgrove with production of gold concentrate and antimony-gold concentrate commencing in 2014.

Hillgrove contains significant infrastructure with a historical cost of \$180 million (including existing processing plant, surface infrastructure, underground development, resource definition drilling and underground mining fleet). Historical production at Hillgrove exceeds 730,000 oz of gold (in concentrate and bullion) and 50,000 tonnes of antimony (in concentrate and metal) plus by-product tungsten.

The Hillgrove Gold Mine was placed on care & maintenance in 2016 due to low prevailing antimony prices and is currently being maintained by a staff of 5 employees.

Red River now holds approximately 425km<sup>2</sup> of tenements surrounding the Hillgrove Gold Mine, containing the entirety of the Hillgrove Mineral Field (which has a known extent of approximately 9km x 6km) and contains over 200 known gold-antimony +/- tungsten occurrences.

Of these known occurrences, 18 have had significant historical mining activity, and 6 contain either JORC 2012 and/or JORC 2004 compliant Mineral Resources. Hillgrove has a current JORC 2012 compliant Mineral Resource of 2.8Mt @ 5.1 g/t Au and 1.7% Sb (459Koz Au & 48Kt Sb) (refer to Table 3) plus a material JORC 2004 compliant Mineral Resource

Table 3 Hillgrove Mineral Resource at a 5g/t Gold Equivalent cut-off

Classification	Tonnes (kt)	Gold (g/t)	Antimony (%)	Gold Equivalent (Au Eq.) (g/t)	Contained Gold (Koz Au)	Contained Antimony (Kt Sb)
Measured	690	5.8	2.6	9.8	129	18
Indicated	1,100	4.9	1.5	7.0	173	17
Inferred	1,000	5.0	1.1	6.5	161	11
<b>Total</b>	<b>2,800</b>	<b>5.1</b>	<b>1.7</b>	<b>7.5</b>	<b>459</b>	<b>48</b>
Source: AMC Consultants Pty. Ltd. Hillgrove Mineral Resource Estimate (August 2017) Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding. Gold equivalent (Au Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained in the AMC Estimate and included this announcement.						

Mineralisation at Hillgrove is hosted by a series of fracture-controlled vein systems and breccias, with a known vertical extent in excess of 1,200m (open at depth) and strike extent in excess of 4km. The upper part of the vein systems are dominated by antimony mineralisation (stibnite) as massive stibnite veins within a broad halo of refractory gold in arsenopyrite transitioning to gold dominated mineralisation (visible free gold in arsenopyrite rich halo surrounding quartz breccia and stibnite veins with visible free gold) at depth.

For a more comprehensive overview of the Hillgrove Gold Mine please refer to the site visit presentation dated 19 September 2019.

### **3.1. Hillgrove Gold Mine Restart Strategy**

Red River has commenced work on the Hillgrove Gold Mine Restart Strategy. This includes

- Conversion of JORC 2004 compliant Mineral Resources to JORC 2012 compliant Mineral Resources;
- Commence metallurgical test work on the Bakers Creek Waste Dump (refer to ASX release dated 4 September 2019 “Red River identifies gold potential in Hillgrove waste dump”); and
- Commenced design of a gold focused drilling program.



Figure 1 Hillgrove Gold Mine showing processing infrastructure and layout



Figure 2 Hillgrove Gold Mine



## 4. CORPORATE

### 4.1. Financial Performance

Financial performance of the Thalanga Operation is summarised in the table below.

Table 4 Thalanga Operations Financial Summary and Indicative Cash Costs for the September 2019 Quarter (Q1 FY20) and FY2020 YTD (unaudited)

	Units	Q1 FY19	Q2 FY19	Q3 FY19	Q4 FY19	Q1 FY20	FY2020 YTD
Revenue	\$m	16.3	18.2	32.6	30.5	20.9	20.9
Thalanga Operations EBITDA	\$m	1.3	1.7	12.5	7.6	3.0	3.0
<b>Indicative Cash Costs</b>							
Payable zinc metal produced	MTb	7.0	8.2	9.9	9.4	6.1	6.1
Indicative C1 Cash Cost	US\$/lb payable Zn	0.70	0.47	0.14	0.44	0.76	0.76
Indicative C2 Cost	US\$/lb payable Zn	1.02	0.73	0.37	0.68	1.14	1.14
Indicative C3 Cost	US\$/lb payable Zn	1.22	0.93	0.58	0.87	1.35	1.35
<p>All numbers and data are rounded. Discrepancies in totals may exist due to rounding.</p> <p>Payable metal is derived from concentrate offtake agreements</p> <p>C1 cash cost includes actual cash costs plus notional costs (concentrate logistics and realisation costs)</p> <p>C1 cash cost includes credits for copper, lead, gold and silver notionally priced at for the period (Q1 FY20: copper US\$2.62/lb, lead US\$0.91/lb, gold US\$1471/oz and silver US\$16.90/oz)</p>							

**Revenue** during the quarter was \$20.9 million, with \$9.1 million from sale of zinc metal in concentrate, \$5.0 million from the sale of lead metal in concentrate, \$2.4 million from sale of copper metal in concentrate and \$4.4 million from sale of payable precious metals (gold and silver) contained in copper and lead concentrates.

**Thalanga Operations** quarterly EBITDA (unaudited) was \$3.0 million, a decrease of \$4.6 million over the prior quarter. Compared to the previous quarter:

- Revenue was \$9.6 million lower due to lower sales volumes (\$9.0 million) and lower realised metal prices (\$0.6 million),
- Sales realisation expenses were \$2.0 million lower with higher concentrate treatment charges (\$0.7 million) being more than offset by lower realisation costs due to lower sales volumes.
- Operating costs were \$3.0 million lower with lower costs at West 45 Mine following the peak in mine development requirements to access the Lens 6 orebody last quarter, being partially offset by the cost of mining increased ore tonnages from the Far West Mine.

**C1 Cash costs** for the period increased compared to the prior quarter primarily due to a 35% decrease in payable zinc metal contained in zinc concentrate. This impact was partially offset by lower operating costs mentioned above.

**Cash at bank** at the end of the quarter was \$17.3 million, a decrease of \$8.6 million. This was after payment of FY19 Queensland Government Mineral Royalty (\$4.0 million), investing \$3.5 million in mine development, (primarily the Far West underground mine) and \$0.9 million in exploration.

**Financial assets** at the end of the quarter increased by \$4.4 million to \$12.9 million (cash backed security bond deposits) with the completion of the Hillgrove Gold Mine acquisition.

### 4.2. Royalty Update

Red River and its wholly-owned subsidiary, Cromarty Resources Pty Ltd, have filed their defence and cross claim in the proceedings commenced by Thalanga Copper Mines Pty Ltd on 24 February 2019 and continue to defend the proceedings vigorously. Red River will continue to update the market on these proceedings.



### 4.3. Queensland Government Mineral Royalty Update

As per the previously quarterly (30 June 2019), Red River has paid Queensland Government Mineral Royalty due for FY19 (\$4.0 million) and moving forward (effective from July 1 2019), Red River's wholly owned subsidiary, Cromarty Resources Pty Ltd, will be required to submit and pay its Queensland Government Mineral Royalty on a quarterly basis.

On behalf of the Board



**CAMERON BODLEY**

**Company Secretary**

Red River Resources Limited

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For further information please visit Red River's website [www.redriverresources.com.au](http://www.redriverresources.com.au) or contact us:

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### COMPETENT PERSON STATEMENT

#### Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr Steven Harper who is a member of The Australasian Institute of Mining and Metallurgy, and a full time employee of Red River Resources Ltd., and who has sufficient experience 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 the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).

Mr Harper consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

## Appendix A – Tenement Interests

### 1. QUEENSLAND

As at 30 September 2019, Red River had an interest in the following exploration permit minerals (EPM) and mining leases (ML) in Queensland.

Table 5 RVR Exploration Permit Minerals (EPM) (Queensland)

Project	Location	Licence	Status	Beneficial Interest
Thalanga Operations	Queensland	EPM 10582	Granted	100%
Thalanga Operations	Queensland	EPM 12766	Granted	100%
Thalanga Operations	Queensland	EPM 14161	Granted	100%
Thalanga Operations	Queensland	EPM 16929	Granted	100%
Thalanga Operations	Queensland	EPM 18470	Granted	100%
Thalanga Operations	Queensland	EPM 18471	Granted	100%
Thalanga Operations	Queensland	EPM 18713	Granted	100%
Thalanga Operations	Queensland	EPM 25815	Granted	100%
Thalanga Operations	Queensland	EPM 25895	Granted	100%
Thalanga Operations	Queensland	EPM 26718	Granted	100%

Table 6 RVR Mining Leases (ML) (Queensland)

Project	Location	Licence	Status	Beneficial Interest
Thalanga Operations	Queensland	ML 1392	Granted	100%
Thalanga Operations	Queensland	ML 1531	Granted	100%
Thalanga Operations	Queensland	ML 10137	Granted	100%
Thalanga Operations	Queensland	ML 10185	Granted	100%
Thalanga Operations	Queensland	ML 10186	Granted	100%
Thalanga Operations	Queensland	ML 10277	Granted	100%

## 2. NEW SOUTH WALES

As at 30 September 2019, Red River had an interest in the following exploration licences (EL), gold leases (GL) mining leases (ML), mining purpose leases (MPL) and private land leases (PLL) in New South Wales (NSW).

Table 7 RVR Exploration Licences (EL) (NSW)

Project	Location	Licence	Status	Beneficial Interest
Hillgrove	NSW	EL 3326	Granted	100%
Hillgrove	NSW	EL 5973	Granted	100%
Hillgrove	NSW	EL 5997	Granted	100%
Hillgrove	NSW	EL 6419	Granted	100%

Table 8 RVR Mining Leases (ML) (NSW)

Project	Location	Licence	Status	Beneficial Interest
Hillgrove	NSW	ML 205	Granted	100%
Hillgrove	NSW	ML 219	Granted	100%
Hillgrove	NSW	ML 231	Granted	100%
Hillgrove	NSW	ML 391	Granted	100%
Hillgrove	NSW	ML 392	Granted	100%
Hillgrove	NSW	ML 592	Granted	100%
Hillgrove	NSW	ML 600	Granted	100%
Hillgrove	NSW	ML 649	Granted	100%
Hillgrove	NSW	ML 655	Granted	100%
Hillgrove	NSW	ML 714	Granted	100%
Hillgrove	NSW	ML 749	Granted	100%
Hillgrove	NSW	ML 772	Granted	100%
Hillgrove	NSW	ML 810	Granted	100%
Hillgrove	NSW	ML 945	Granted	100%
Hillgrove	NSW	ML 961	Granted	100%
Hillgrove	NSW	ML 972	Granted	100%
Hillgrove	NSW	ML 1020	Granted	100%
Hillgrove	NSW	ML 1026	Granted	100%
Hillgrove	NSW	ML 1100	Granted	100%
Hillgrove	NSW	ML 1101	Granted	100%
Hillgrove	NSW	ML 1332	Granted	100%
Hillgrove	NSW	ML 1440	Granted	100%
Hillgrove	NSW	ML 1441	Granted	100%
Hillgrove	NSW	ML 1442	Granted	100%
Hillgrove	NSW	ML 1598	Granted	100%
Hillgrove	NSW	ML 1599	Granted	100%
Hillgrove	NSW	ML 1600	Granted	100%
Hillgrove	NSW	ML 1601	Granted	100%
Hillgrove	NSW	ML 1602	Granted	100%
Hillgrove	NSW	ML 1603	Granted	100%
Hillgrove	NSW	ML 1604	Granted	100%
Hillgrove	NSW	ML 5643	Granted	100%
Hillgrove	NSW	ML 6282	Granted	100%

Table 9 RVR Gold Leases (GL) (NSW)

Project	Location	Licence	Status	Beneficial Interest
Hillgrove	NSW	GL 3959	Granted	100%
Hillgrove	NSW	GL 3980	Granted	100%
Hillgrove	NSW	GL 5845	Granted	100%

Gold Lease (GL): GLs were a type of mining lease permitted under the *Mining Act 1906* (NSW). They are no longer granted under the *Mining Act 1992* (NSW).

Table 10 RVR Mining Purpose Leases (MPL) (NSW)

Project	Location	Licence	Status	Beneficial Interest
Hillgrove	NSW	MPL 146	Granted	100%
Hillgrove	NSW	MPL 220	Granted	100%
Hillgrove	NSW	MPL 745	Granted	100%
Hillgrove	NSW	MPL 919	Granted	100%
Hillgrove	NSW	MPL 1427	Granted	100%

Mining Purposes Lease (MPL): MPLs are granted for areas in coal and minerals mining operations such as infrastructure purposes where resource extraction does not take place. Hence, they will appear as 'nil minerals'. MPLs were granted under the 1906 and 1973 Mining Acts. MPLs are no longer granted and leases for mining purposes are now categorised as MLs under the *Mining Act 1992* (NSW). The term 'mining purpose(s)' is now referred to as Ancillary Mining Activities

Table 11 RVR Private Land Leases (PLL) (NSW)

Project	Location	Licence	Status	Beneficial Interest
Hillgrove	NSW	PLL 350	Granted	100%
Hillgrove	NSW	PLL 416	Granted	100%
Hillgrove	NSW	PLL 661	Granted	100%
Hillgrove	NSW	PLL 804	Granted	100%
Hillgrove	NSW	PLL 1252	Granted	100%
Hillgrove	NSW	PLL 3827	Granted	100%

Private Lands Lease (PLL): A PLL was a type of Mining Lease to extract minerals or petroleum granted under the 1906, 1918, and 1924 Mining Acts. PLLs are no longer granted

## Zinc Equivalent Calculation

The net smelter return zinc equivalent (Zn Eq.) calculation adjusts individual grades for all metals included in the metal equivalent calculation applying the following modifying factors: metallurgical recoveries, payability factors (concentrate treatment charges, refining charges, metal payment terms, net smelter return royalties and logistic costs) and metal prices in generating a zinc equivalent value for copper (Cu), lead (Pb), zinc (Zn), gold (Au) and silver (Ag).

Red River has selected to report on a zinc equivalent basis, as zinc is the metal that contributes the most to the net smelter return zinc equivalent (Zn Eq.) calculation. It is the view of Red River Resources that all the metals used in the Zn Eq. formula are expected to be recovered and sold.

Where:

**Metallurgical Recoveries** are derived from historical metallurgical recoveries from test work carried out at the Thalanga (West 45 and Far West) deposit. The Metallurgical Recovery for each metal is shown below in Table 1.

**Metal Prices and Foreign Exchange** assumptions are set as per internal Red River price forecasts and are shown below in Table 1.

Table 1 Metallurgical Recoveries and Metal Prices

			Thalanga (West 45 and Far West)
Metal	Units	LT Price	
Copper	US\$/lb	US\$3.00	80%
Lead	US\$/lb	US\$0.90	70%
Zinc	US\$/lb	US\$1.00	88%
Gold	US\$/oz	US\$1,200	50%
Silver	US\$/oz	US\$17.00	65%

**Payable Metal Factors** are calculated for each metal and make allowance for concentrate treatment charges, transport losses, refining charges, metal payment terms and logistic costs. Three separate saleable base metal concentrates (copper, lead and zinc) are currently being produced from West 45 and Far West. Payable metal factors are detailed below in Table 2.

Table 2 Payable Metal Factors

Metal	Payable Metal Factor
Copper	Copper concentrate treatment charges, copper metal refining charges copper metal payment terms (in copper concentrate), logistic costs and net smelter return royalties
Lead	Lead concentrate treatment charges, lead metal payment terms (in lead concentrate), logistic costs and net smelter return royalties
Zinc	Zinc concentrate treatment charges, zinc metal payment terms (in zinc concentrate), logistic costs and net smelter return royalties
Gold	Gold metal payment terms (in copper and lead concentrates), gold refining charges and net smelter return royalties
Silver	Silver metal payment terms (in copper, lead and zinc concentrates), silver refining charges and net smelter return royalties

The zinc equivalent grade is calculated as per the following formula:

$$\text{Zn Eq.} = (\text{Zn}\% \times 1.0) + (\text{Cu}\% \times 3.3) + (\text{Pb}\% \times 0.9) + (\text{Au ppm} \times 0.5) + (\text{Ag ppm} \times 0.025)$$

The following metal equivalent factors used in the zinc equivalent grade calculation has been derived from metal price x Metallurgical Recovery x Payable Metal Factor and have then been adjusted relative to zinc (where zinc metal equivalent factor = 1).

Table 3 Metal Equivalent Factors

Mineral Resource	Copper (CuMEF)	Lead (PbMEF)	Zinc (ZnMEF)	Gold (AuMEF)	Silver (Ag MEF)
<b>Thalanga (West 45 and Far West)</b>	3.3	0.9	1.0	0.5	0.025



## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Red River Resources Limited

### ABN

35 100 796 754

### Quarter ended ("current quarter")

September 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	21,128	21,128
1.2 Payments for		
(a) exploration & evaluation	(892)	(892)
(b) development	(3,502)	(3,502)
(c) production	(11,374)	(11,374)
(d) staff costs	(2,352)	(2,352)
(e) administration	(194)	(194)
(f) corporate costs	(549)	(549)
(g) sales realisation expenses	(8,675)	(8,675)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	139	139
1.5 Interest and other costs of finance paid	(162)	(162)
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 GST / BAS (provide details if material)	(1,773)	(1,773)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(8,205)</b>	<b>(8,205)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(176)	(176)
(b) tenements (see item 10)	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
	(c) investments	-	-
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material) (primarily increase in rehabilitation bond)	(77)	(77)
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(254)</b>	<b>(254)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(15)	(15)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(134)	(134)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(148)</b>	<b>(148)</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	25,918	25,918
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(8,205)	(8,205)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(254)	(254)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(148)	(148)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	<b>Cash and cash equivalents at end of period</b>	<b>17,311</b>	<b>17,311</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	7,911	18,618
5.2	Call deposits	9,400	7,300
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>17,311</b>	<b>25,918</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

157

NIL

Director fees (NED and Executive) - \$158,000

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

41

NIL

Provision of accounting, taxation and corporate secretarial services – Hanson Porter Curzon Pty Ltd

## Mining exploration entity and oil and gas exploration entity quarterly report

8.	Financing facilities available	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
	Add notes as necessary for an understanding of the position		
8.1	Loan facilities	USD10,000	-
8.2	Credit standby arrangements	30	1
8.3	Other (please specify)	-	-
8.4	Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		
8.1 USD Credit Facility			
8.2 Credit card facility.			

<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	900
9.2 Development (capital)	3,500
9.3 Production	13,000
9.4 Staff costs (included in production / development costs)	3,000
9.5 Administration and Corporate costs	800
9.6 Other (sales realisation costs)	7,000
<b>9.7 Total estimated cash outflows</b>	<b>25,200</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2 Interests in mining tenements and petroleum tenements acquired or increased	EL 3326 Hillgrove NSW	Acquired through acquisition of Hillgrove Mines Pty. Ltd.	0%	100 %
	EL 5973 Hillgrove NSW	"	0%	100 %
	EL 5997 Hillgrove NSW	"	0%	100 %
	EL 6419 Hillgrove NSW	"	0%	100 %
	ML 205 Hillgrove NSW	"	0%	100 %
	ML 219 Hillgrove NSW	"	0%	100 %

**Appendix 5B**

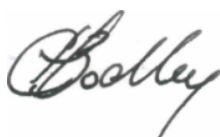
**Mining exploration entity and oil and gas exploration entity quarterly report**

	ML 231 Hillgrove NSW	Acquired through acquisition of Hillgrove Mines Pty. Ltd.	0%	100 %
	ML 391 Hillgrove NSW	"	0%	100 %
	ML 392 Hillgrove NSW	"	0%	100 %
	ML 592 Hillgrove NSW	"	0%	100 %
	ML 600 Hillgrove NSW	"	0%	100 %
	ML 649 Hillgrove NSW	"	0%	100 %
	ML 655 Hillgrove NSW	"	0%	100 %
	ML 714 Hillgrove NSW	"	0%	100 %
	ML 749 Hillgrove NSW	"	0%	100 %
	ML 772 Hillgrove NSW	"	0%	100 %
	ML 810 Hillgrove NSW	"	0%	100 %
	ML 945 Hillgrove NSW	"	0%	100 %
	ML 961 Hillgrove NSW	"	0%	100 %
	ML 972 Hillgrove NSW	"	0%	100 %
	ML 1020 Hillgrove NSW	"	0%	100 %
	ML 1026 Hillgrove NSW	"	0%	100 %
	ML 1100 Hillgrove NSW	"	0%	100 %
	ML 1101 Hillgrove NSW	"	0%	100 %
	ML 1332 Hillgrove NSW	"	0%	100 %
	ML 1440 Hillgrove NSW	"	0%	100 %
	ML 1441 Hillgrove NSW	"	0%	100 %
	ML 1442 Hillgrove NSW	"	0%	100 %
	ML 1598 Hillgrove NSW	"	0%	100 %
	ML 1599 Hillgrove NSW	"	0%	100 %
	ML 1600 Hillgrove NSW	"	0%	100 %
	ML 1601 Hillgrove NSW	"	0%	100 %
	ML 1602 Hillgrove NSW	"	0%	100 %
	ML 1603 Hillgrove NSW	"	0%	100 %
	ML 1604 Hillgrove NSW	"	0%	100 %
	ML 5643 Hillgrove NSW	"	0%	100 %
	ML 6282 Hillgrove NSW	"	0%	100 %
	GL 3959 Hillgrove NSW	"	0%	100 %
	GL 3980 Hillgrove NSW	"	0%	100 %
	GL 5845 Hillgrove NSW	"	0%	100 %
	MPL 146 Hillgrove NSW	"	0%	100 %
	MPL 220 Hillgrove NSW	"	0%	100 %
	MPL 745 Hillgrove NSW	"	0%	100 %
	MPL 919 Hillgrove NSW	"	0%	100 %

	MPL 1427 Hillgrove NSW	Acquired through acquisition of Hillgrove Mines Pty. Ltd.	0%	100 %
	PLL 350 Hillgrove NSW	"	0%	100 %
	PLL 416 Hillgrove NSW	"	0%	100 %
	PLL 661 Hillgrove NSW	"	0%	100 %
	PLL 804 Hillgrove NSW	"	0%	100 %
	PLL 1252 Hillgrove NSW	"	0%	100 %
	PLL 3827 Hillgrove NSW	"	0%	100 %

### Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



29 October 2019

Sign here: .....  
Company secretary

Date: .....

Cameron Bodley

Print name: .....

### Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.