

#### **ASX Announcement**

31 January 2017

#### ASX Code: RVR

# **Quarterly Activities and Cash Flow Report** for the period ending 31 December 2016

Australian zinc developer Red River Resources Limited (ASX: RVR) ("Red River" or "the Company") is pleased to report its activities and corporate developments for the December 2016 Quarter.

#### **Highlights**

During the quarter, RVR successfully undertook a two tranche \$30 million placement, with the second tranche (approximately \$16 million) settled subsequent to the end of the quarter. This placement, combined with RVR's existing cash balances has fully funded the Thalanga Zinc Project restart, and allowed Red River to commence the restart of the Thalanga Zinc Project, with commercial concentrate production scheduled to commence in 2H CY2017.

Red River is now positioned as the sole ASX listed zinc company scheduled to commence production in CY2017, and when production starts, Red River will be the sole ASX listed pure play zinc producer.

#### **Thalanga Zinc Project Restart & Development Activities**

- Project on track to restart production in 2H 2017
- Refurbishment work continued to optimise plant for restart of production
  - Concentrate thickener rakes refurbished, currently installing and commissioning all three thickener drives
  - Structural work completed around Mills 1 & 2 main beam and others replaced
  - Refurbishment of concentrate storage bunds underneath filter press, old steelwork has been stripped out.
  - Conveyor audit completed
  - Feed chute of CV05 removed, being refurbished
  - Started refurbishment work on powerlines

#### **Thalanga Zinc Project Exploration Activities**

- 17 drill holes were completed during the quarter (for a total of 5,778m drilled) at the Far West, Liontown East and Thalanga Mining Lease targets.
- Two drill holes (one at Far West and one at Liontown East) were abandoned due to excessive deviation.

#### Table 1 Thalanga Zinc Project Drilling Summary

| Project                           | Holes Completed | Total Metres Drilled |
|-----------------------------------|-----------------|----------------------|
| Far West                          | 15              | 4,670                |
| Liontown East                     | 1               | 693                  |
| Thalanga Mining Lease Exploration | 1               | 414                  |



### Corporate

- An oversubscribed \$30 million placement was completed to fully fund the restart of Thalanga Zinc Project. The placement was conducted in two tranches, and the second tranche was settled subsequent to the end of the quarter.
- A deferred cash payment of \$1.5 million was made to Kagara Ltd (in liquidation) as final consideration for Red River's acquisition of 100% of the Thalanga Zinc Project.
- Red River welcomed Ausbil Investment Management Limited as a substantial shareholder during the quarter (initial holding of 22.5m RVR shares) and was pleased to note the continuing support from an existing substantial shareholder, Contango Funds Management Limited, who increased their holding in RVR during the quarter (from 15.5m to 26.0m RVR shares).
- 2.328m options were exercised during the period.
- Cash balance of \$20.9m at 31 December 2016.

#### **Plans for March Quarter CY2017**

The planned activity levels on site will materially increase, with an increase in staff (Red River and contract) and the commencement of mining activities at West 45 (subject to engagement of a mining contractor).

### **Thalanga Zinc Project Restart & Development Activities**

- Finalise engagement of mining contractor and restart mining activities at West 45;
- Continue restart & refurbishment activities at the Thalanga Plant;
- Complete hiring of senior management personnel; and
- Conclude concentrate offtake agreement negotiations.

#### Thalanga Zinc Project Exploration Activities

- Continue resource definition and extension drilling at Far West;
- Continue drilling at the exciting Liontown East target;
- Complete the ongoing IP target generation survey; and
- Commence extension drilling at West 45.



#### 1. Safety & Environmental Performance

A total of 13,315 man hours were worked for the period 1 October 2016 to 31 December 2016, with no injuries recorded during this period. No environmental incidents were reported during this period.

Dewatering of the Vomacka pit has continued throughout the quarter and water levels have dropped significantly. A hazardous dam audit as well as the third party audit of the Environmental Authority was completed and submitted, with no major issues were raised.

The water level in the West 45 underground development is being kept at a minimum, with occasional pumping throughout the quarter. Maintenance activities around buildings and equipment continued, with corroded structures being replaced and painted. Structures around the grinding circuit have been repaired and damaged beams replaced. Works around the fine ore bin were completed to ensure effective drainage in that area, conveyor structures were cleaned and inspected. Man hours increased with an increase in exploration activities with all three drill rigs operating at full capacity and also associated manpower with increased site activity during the refurbishment process.

#### 2. Thalanga Zinc Project Restart & Development Activities

The Thalanga Zinc Project is located 60km SW of Charters Towers in Central Queensland (Figure 1) and consists of the following key assets:

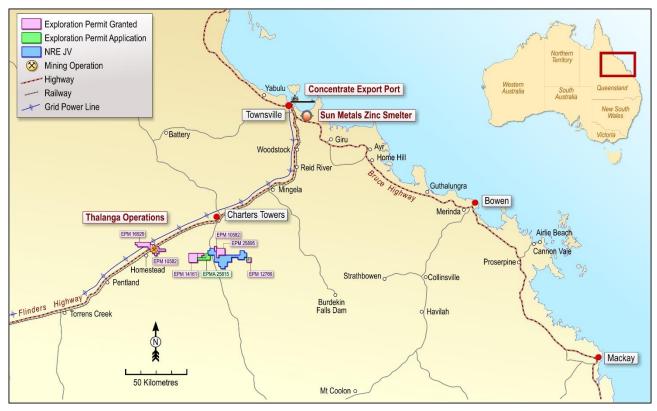
- 650ktpa capacity polymetallic processing facility capable of producing separate copper, lead and zinc concentrates;
- Tailings storage facility; and
- Site offices, workshops and change facilities.

Site access is by sealed road, and historically, the Thalanga Zinc Project was run as a residential operation, with the workforce predominately living in Charters Towers. The site has been kept on active care & maintenance since it was last operated in early 2012.

Subsequent to the end of the quarter, Red River completed a \$30 million placement which has fully funded the restart of the Thalanga Zinc Project. The full restart of the Thalanga Zinc Project commenced on completion of the placement, with commercial production scheduled to commence in 2H CY2017.



Figure 1 Thalanga Zinc Project Location



#### 2.1. Concentrate Offtake

Red River has shortlisted a number of parties as potential offtake partners for the Thalanga copper, lead and zinc concentrates. Discussions will continue with these parties, with the objective of finalising an offtake agreement early in CY2017.



2.2. Thalanga Plant Refurbishment Works

# Early stage refurbishment work has commenced at the Thalanga Drosessing Diant, part of its Thalanga

Early stage refurbishment work has commenced at the Thalanga Processing Plant, part of its Thalanga Zinc Project in Queensland. The work that was undertaken during the quarter includes the following:

| Pumps and Valves                      | Continue with replacement and repair work across site                                  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|
| - ampo ama ranco                      | Overhead main raw water pipeline replaced with poly line                               |  |  |  |  |
| Structural                            | Non destructive testing (NDT) package to confirm scope of repairs - Ongoing            |  |  |  |  |
|                                       | Lime silo structural repairs   |  |  |  |  |
|                                       | Concentrator roof and sidewall repairs – Western side completed.                       |  |  |  |  |
|                                       | Ball Mills 1 & 2 structural work and repairs – Completed                               |  |  |  |  |
|                                       | Ball Mill 3 feed chute replacement and associated structural repairs -                 |  |  |  |  |
| Conveyors                             | Replacement of conveyor rollers - Ongoing  |  |  |  |  |
| 000,0                                 | Feeder 2 conveyor replacement  |  |  |  |  |
|                                       | Replacement / repair of take up, head and tail pulleys – Ongoing, removed and awaiting |  |  |  |  |
|                                       | refurbishment  |  |  |  |  |
|                                       | CV03 belt replacement  |  |  |  |  |
| Miscellaneous                         | Repair & recertify all cranes on site – 20 % completed                                 |  |  |  |  |
| · · · · · · · · · · · · · · · · · · · | Gridmesh and walkway repairs - Ongoing   |  |  |  |  |
|                                       | Commence concentrate filter press refurbishment – storage bunkers underneath stripped  |  |  |  |  |
|                                       | for inspection, replacement will commence.   |  |  |  |  |
|                                       | Thickener rakes repairs / refurbish - Completed  |  |  |  |  |
|                                       | Crusher hydraulics system check and repairs – Ongoing                                  |  |  |  |  |
|                                       | Powerline refurbishment and commissioning for power supply to West 45 started          |  |  |  |  |

Figure 2 Overhead main raw water pipeline replacement





#### 3. Thalanga Zinc Project Exploration Activities

The main focus of activity during the quarter was resource definition and extension drilling at Far West (fifteen holes completed), and the continuing drilling program at the exciting Liontown East discovery.

#### 3.1. Resource Definition and Extension Drilling

Fifteen holes were completed at Far West during the quarter, TH683 to TH698 for a total of 4,670m.

Table 2 Drill hole information summary, Thalanga Zinc Project (Far West Infill)

| Hole ID              | Depth (m) | Dip | Azi (MGA) | East (MGA) | North (MGA) | RL (MGA) | Lease ID | Hole Status |
|----------------------|-----------|-----|-----------|------------|-------------|----------|----------|-------------|
| TH683 <sup>(1)</sup> | 301.0     | -56 | 209       | 371096     | 7750813     | 334      | ML1392   | Completed   |
| TH684                | 387.6     | -67 | 211       | 371096     | 7750813     | 334      | ML1392   | Completed   |
| TH685                | 336.0     | -67 | 187       | 371096     | 7750813     | 334      | ML1392   | Completed   |
| TH686                | 326.0     | -63 | 178       | 371096     | 7750813     | 334      | ML1392   | Completed   |
| TH687                | 320.2     | -76 | 190       | 370948     | 7750824     | 334      | ML1531   | Completed   |
| TH688                | 311.0     | -66 | 195       | 371041     | 7750822     | 355      | ML1531   | Completed   |
| TH689                | 287.3     | -70 | 204       | 370948     | 7750824     | 334      | ML1531   | Completed   |
| TH690                | 346.5     | -70 | 207       | 371041     | 7750822     | 335      | ML1531   | Completed   |
| TH691                | 380.3     | -76 | 217       | 370948     | 7750824     | 334      | ML1531   | Completed   |
| TH692 <sup>(2)</sup> | 26.2      | -76 | 217       | 370948     | 7750824     | 334      | ML1531   | Abandoned   |
| TH693                | 392.3     | -76 | 217       | 370948     | 7750824     | 334      | ML1531   | Completed   |
| TH694                | 222.0     | -70 | 220       | 371122     | 7750710     | 332      | ML1392   | Completed   |
| TH695                | 269.5     | -51 | 187       | 371041     | 7750822     | 336      | ML1392   | Completed   |
| TH696                | 338.3     | -67 | 226       | 370948     | 7750824     | 339      | ML1531   | Completed   |
| TH697                | 200       | -55 | 230       | 371122     | 7750710     | 332      | ML1392   | Completed   |
| TH698                | 506.3     | -63 | 33        | 370602     | 7750620     | 340      | ML1531   | Completed   |

<sup>(1)</sup> Final 74.3m of TH683 was drilled during this quarter

Assay results were received for TH683 to TH694 during the quarter, and assay results for TH695 to TH698 were received subsequent to the quarter end.

Table 3 Drill hole assay summary, Thalanga Zinc Project (Far West Infill Drilling)

| Hole ID | From (m) | To (m) | Intersection (m) <sup>(1)</sup> | Cu (%)                               | Pb (%)     | Zn (%) | Au (g/t) | Ag (g/t) | Zn Eq. (%) <sup>(2)</sup> |
|---------|----------|--------|---------------------------------|--------------------------------------|------------|--------|----------|----------|---------------------------|
| TH683   | 273.0    | 277.0  | 4.0                             | 0.3%                                 | 1.1%       | 4.1%   | 0.1 g/t  | 13.5 g/t | 6.6%                      |
| and     | 287.9    | 293.4  | 5.5                             | 0.7%                                 | 2.1%       | 5.6%   | 0.6 g/t  | 69 g/t   | 12.0%                     |
| TH684   | 346.0    | 359.4  | 13.4                            | 1.9%                                 | 1.3%       | 2.8%   | 0.2 g/t  | 55 g/t   | 11.8%                     |
| inc.    | 355.0    | 359.4  | 4.4                             | 3.3%                                 | 2.3%       | 3.7%   | 0.4 g/t  | 79 g/t   | 19.0%                     |
| TH685   | 314.45   | 316.3  | 1.85                            | 1.4%                                 | 1.6%       | 5.3%   | 0.2 g/t  | 36 g/t   | 12.4%                     |
| TH686   | 296.0    | 300.6  | 4.6                             | 2.1%                                 | 0.8%       | 3.3%   | 0.2 g/t  | 41 g/t   | 12.0%                     |
| TH687   |          |        |                                 | No Significant Intercept             |            |        |          |          |                           |
| TH688   |          |        |                                 | No Signific                          | ant Interc | ept    |          |          |                           |
| TH689   |          |        |                                 | No Signific                          | ant Interc | ept    |          |          |                           |
| TH690   | 316.0    | 317.15 | 1.15                            | 2.7%                                 | 1.4%       | 9.7%   | 0.4 g/t  | 59 g/t   | 21.4%                     |
| TH691   | 331.05   | 332.75 | 1.7                             | 1.3%                                 | 5.5%       | 13.9%  | 0.7 g/t  | 136 g/t  | 26.9%                     |
| TH692   |          |        |                                 | Abandoned due to excessive deviation |            |        |          |          |                           |
| TH693   | 339.1    | 341.8  | 2.7                             | 3.1%                                 | 3.2%       | 7.7%   | 0.4 g/t  | 167 g/t  | 25.3%                     |
| TH694   | 188.8    | 190.85 | 2.05                            | 7.6%                                 | 3.8%       | 9.3%   | 1.2 g/t  | 161 g/t  | 42.5%                     |
| /4\ 5   |          |        | •                               |                                      |            | •      | •        |          | •                         |

<sup>(1)</sup> Downhole width

<sup>(2)</sup> TH692 was abandoned due to excessive deviation

<sup>(2)</sup> Refer to metal equivalent calculation on page 12



#### 3.2. Regional Exploration Activities

Red River is undertaking a high impact exploration program with the aim of increasing the Thalanga Zinc Project Mineral Resource to extend mine life and/or increase mill utilisation; and discovery of the next generation of ore bodies within the Mt Windsor Belt. During the quarter, the following work was carried out:

#### 3.3. Liontown East

One diamond drill hole (LTED05) was completed during the quarter at the Liontown East target. LTDED05 intersected a broad zone of massive and semi-massive sulphide mineralisation from 504.7m to 530.7m downhole and returned a very high-grade intercept of 6.3m @ 25.2% Zn Eq. from 504.7m down-hole, within a larger intercept of 26.0m @ 10.3% Zn Eq. from 504.7m to 530.7m down-hole.

Table 4 Drill hole assay summary, Thalanga Zinc Project (Liontown East)

| Hole ID | From (m) | To (m) | Intersection (m) <sup>(1)</sup> | Cu (%)                               | Pb (%) | Zn (%) | Au (g/t) | Ag (g/t) | Zn Eq. (%) <sup>(2)</sup> |
|---------|----------|--------|---------------------------------|--------------------------------------|--------|--------|----------|----------|---------------------------|
| LTED04  |          |        |                                 | Abandoned due to excessive deviation |        |        |          |          |                           |
| LTED05  | 504.7    | 530.7  | 26.0                            | 0.6%                                 | 2.2%   | 5.4%   | 0.9 g/t  | 25 g/t   | 10.3%                     |
| inc.    | 504.7    | 511.0  | 6.3                             | 0.9%                                 | 6.1%   | 14.6%  | 1.4 g/t  | 64 g/t   | 25.2%                     |
| (1) Dow |          |        |                                 |                                      |        |        |          |          |                           |

(2) Refer to metal equivalent calculation on page 12

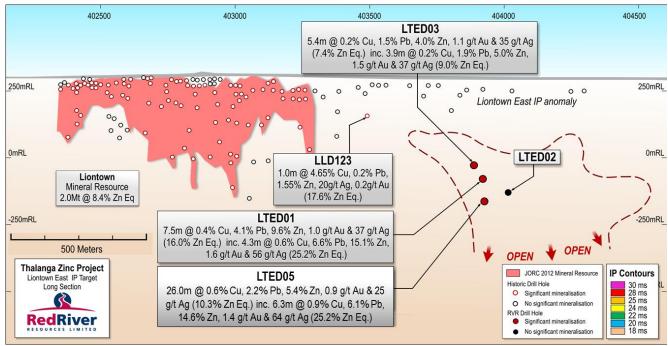
LTED05 was terminated at 530.7m depth and a subsequent to the end of the quarter, a daughter hole (wedge) was commenced to test the deeper footwall target. LTED04 was abandoned at 162.75m depth due to excessive deviation.

Table 5 Drill hole information summary, Thalanga Zinc Project (Liontown East)

| Hole ID | Depth  | Dip  | Azi (MGA) | East (MGA) | North (MGA) | RL (MGA) | Lease ID  | <b>Hole Status</b> |
|---------|--------|------|-----------|------------|-------------|----------|-----------|--------------------|
| LTED04  | 162.75 | -60° | 3.3°      | 403790     | 7742679     | 302m     | EPM 14161 | Abandoned          |
| LTED05  | 530.7  | -68° | 3.3°      | 403788     | 7742679     | 302m     | EPM 14161 | Completed          |



Figure 3 Liontown East Long Section



#### 3.4. Other Targets

One diamond drill hole (TH699) was completed during the quarter at the Jasper Flats target. TH699 was part funded by the Queensland Government's Collaborative Drilling Initiative (CDI) Round 9.

Table 6 Drill hole information summary, Thalanga Zinc Project (Jasper Flats)

| Hole ID | Depth | Dip  | Azi (MGA) | East (MGA) | North (MGA) | RL (MGA) | Lease ID  | Hole Status |
|---------|-------|------|-----------|------------|-------------|----------|-----------|-------------|
| TH699   | 414.3 | -74° | 024°      | 368147     | 7753374     | 366.5m   | EPM 16929 | Completed   |

TH669 intersected a broad zone of the favourable Quartz Eye Volcaniclastic unit (QEV) that hosts mineralisation at Thalanga. Locally within the QEV zones of moderate sericite alteration were observed with rare sphalerite-chalcopyrite-galena-pyrite stringers.

Whilst no economic mineralisation was intersected the favourable geology, alteration and sulphide assemblage is indicative of a fertile hydrothermal system being developed at Jasper Flats with the potential to host massive sulphide mineralisation. TH699 has been lined with PVC in preparation for future down-hole geophysics.

#### 3.5. Geophysical Exploration Activity

During the quarter, Red River completed a trial micro gravity survey at the Waterloo target and an Induced Polarisation survey was commenced in December.



### **Waterloo Micro Gravity Survey**

A gravity survey crew was mobilised to site to trial a micro gravity survey (with gravity survey stations spaced at approx. 10m distance along each survey line) over the known mineralisation at the Waterloo target. The survey was successfully completed and has confirmed that the micro gravity survey was able to detect the subtle gravity anomaly associated with the denser massive sulphide mineralisation at Waterloo.

Based on the success of the micro gravity survey, this technique is expected to become an important part of the exploration tools Red River deploys at the Thalanga Zinc Project, and will be used to further define drill targets prior to testing.

#### **Induced Polarisation Survey**

The Induced Polarisation (IP) survey was commenced in December and is planned to build on the successful outcome of the previous IP surveys in 2015. The survey commenced in the Liontown-Waterloo Project Area and will also include the Highway-Reward Project Area.



4. Corporate

Red River made substantial progress during the quarter, with Red River receiving commitments to raise \$30 million through a two-tranche placement, providing all necessary funds for the restart of the Thalanga Zinc Project. The completion of the first tranche of the placement triggered the payment of the outstanding deferred cash acquisition payment (\$1.5 million) which was completed during the quarter.

#### 4.1. Placement

The Placement was completed in two tranches, for a total of 162.1 million new shares at a price of \$0.185 per share. The first tranche of approximately 76.1 million shares settled on 12 December and the balance of the placement (86.0 million shares) settled on 16 January.

The Company received strong interest from leading institutional and sophisticated investors in Australia and overseas. Hartleys Limited was Broker to the Offer. The Placement proceeds, in combination with \$20.9 million cash balance held by Red River (as at 31 December, 2016), will fund the restart of the project as well as providing a strong working capital balance.

### 4.2. Deferred Payment

Red River made its final deferred cash acquisition payment of \$1.5 million to Kagara Ltd (in Liquidation). This payment was triggered by the completion of the recent \$30 million placement which financed the re-start of the Project. The completion of this payment leaves Red River with clear title to 100% of the Project, which will be fully unencumbered, with no further outstanding acquisition payments to be made.

#### 4.3. Options Exercised

The 2,328,476 options were exercised during the quarter. Proceeds from the option conversion were used for working capital purposes.



On behalf of the board

CAMERON BODLEY
Company Secretary

**Red River Resources Limited** 

End.

For further information please visit Red River's website www.redriverresources.com.au or contact us:

Mel Palancian

**Managing Director** 

mpalancian@redriverresources.com.au

D: +61 3 9095 7775

Nathan Ryan

**NWR Communications** 

nathan.ryan@nwrcommunications.com.au

M: +61 420 582 887

#### **COMPETENT PERSON STATEMENTS**

#### **Exploration Results**

The information in this report that relates to Exploration Results is based on information compiled by Mr Tav Bates 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 Bates consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.



### Thalanga Zinc Project Background

Red River released a Restart Study (the internal study prepared by Red River to assess the potential restart of the Thalanga Zinc Project) in November 2015, which demonstrated the highly attractive nature of the Project. The Project has a low operating cost, low pre-production capital cost (\$17.2 million), and a short timeline to production (six months).

Annual average production is 21,400 tonnes of zinc, 3,600 tonnes of copper, 5,000 tonnes of lead, 2,000 ounces of gold and 370,000 ounces of silver in concentrate over an initial mine life of five years, and there is outstanding extension potential.

Please refer to ASX release dated 12 November 2015 for further details on the Thalanga Zinc Project Restart Study. Red River confirms that all material assumptions underpinning the production target in the ASX release dated 12 November 2015 continue to apply and have not materially changed.

The Thalanga Zinc Project Restart Study is based on production from three deposits – West 45, Far West and Waterloo. The Thalanga Zinc Project Restart Study is based on low level technical and economic assessments and there is insufficient data to support the estimation of Ore Reserves at Far West and Waterloo, provide assurance of an economic development case at this stage, or provide certainty that the results from the Thalanga Zinc Project Restart Study will be realised. Further, as the production target that forms the basis of the Thalanga Zinc Project Restart Study includes Mineral Resources that are in the Inferred Category and there is a low level of geological confidence associated with Inferred Mineral Resources, there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

#### **Zinc Equivalent Calculation**

Zinc equivalent (Zn Eq.) calculation parameters are listed in Table 7. The metallurgical recoveries are derived from historical metallurgical recoveries from test work carried out on Liontown samples and the Thalanga deposit. The Liontown deposit is related to and of a similar style of mineralisation to the Thalanga Operations and it is appropriate to apply similar recoveries. It is Red River's opinion that all elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold.

**Table 7 Zinc Equivalent Calculation Factors** 

| Metal                  | Price     | Unit    | Recoveries | Zn Eq. Factors |
|------------------------|-----------|---------|------------|----------------|
| Copper                 | US\$3.00  | US\$/lb | 80%        | 3.3            |
| Lead                   | US\$0.90  | US\$/lb | 70%        | 0.9            |
| Zinc                   | US\$1.00  | US\$/lb | 88%        | 1.0            |
| Gold                   | US\$1,200 | US\$/oz | 15%        | 0.5            |
| Silver                 | US\$17.00 | US\$/oz | 65%        | 0.025          |
| FX Rate: A\$0.85:US\$1 |           |         |            |                |

Zn equivalent formula utilised is:  $(Zn\%^*1) + (Cu\%^*3.3) + (Pb\%^*0.9) + (Au_{ppm}^*0.5) + (Ag_{ppm}^*0.025)$ .



# Appendix A – Tenement Interests

As at 31 December 2016, Red River had an interest in the following tenements and projects

| Project               | Location   | Licence   | Status  | Beneficial Interest |  |  |  |  |  |
|-----------------------|------------|-----------|---------|---------------------|--|--|--|--|--|
| Thalanga Zinc Project |            |           |         |                     |  |  |  |  |  |
| Thalanga              | Queensland | EPM 10582 | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | EPM 12766 | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | EPM 14161 | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | EPM 16929 | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | EPM 25815 | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | EPM 25895 | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | ML 1392   | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | ML 1531   | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | ML 10137  | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | ML 10185  | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | ML 10186  | Granted | 100%                |  |  |  |  |  |
| Thalanga              | Queensland | ML 10277  | Granted | 100%                |  |  |  |  |  |



## JORC Code, 2012 Edition – Table 1 (Drill Hole TH699)

**Section 1 Sampling Techniques and Data** (Criteria in this section apply to all succeeding sections.)

| Criteria                 | is section apply to all succeeding sections.)  JORC Code explanation  | Commentary  |
|--------------------------|---|---|
| Sampling techniques      | <ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul> <li>Diamond drilling was used to obtain core samples</li> <li>Samples consist of half NQ2 drill core</li> <li>Sample intervals were selected by company geologists based on visual mineralisation</li> <li>Intervals ranged from 0.6 to 1.3m based on geological boundaries</li> <li>Samples were sawn if half using an onsite core saw and sent to Intertek Genalysis laboratories Townsville.</li> <li>Samples were crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis.</li> <li>Analysis consisted of a four-acid digest and Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) for the following elements; Ag, As, Ba, Bi, Ca, Cu, Fe, K, Mg, Mn, Na, Pb, S, Sb, Ti, Zn, &amp; Zr. Samples were also assayed for Au using a 30g Fire Assay technique</li> </ul> |
| Drilling<br>techniques   | Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).   | <ul> <li>Drilling techniques consist of;</li> <li>PCD drilling through the cover sequence</li> <li>HQ diamond core drilling for the first 30-50m of each hole</li> <li>NQ2 diamond core drilling for the remainder of the drill holes.</li> </ul>   |
| Drill sample<br>recovery | <ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>  | <ul> <li>Sample recovery is measured and recorded by company trained geotechnicians</li> <li>Good ground conditions have been encountered to date</li> </ul>  |
| Logging                  | Whether core and chip samples have<br>been geologically and geotechnically<br>logged to a level of detail to support  | Holes are logged to a level of detail that will support mineral resource estimation.  |



| Criteria   | JORC Code explanation  | Commentary  |
|--|--|---|
| Sub-<br>sampling                                       | <ul> <li>appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>   | <ul> <li>Qualitative logging includes lithology, alteration and textures</li> <li>Quantitative logging includes sulphide and gangue mineral percentages</li> <li>All drill core was photographed</li> <li>All drill holes have been logged in full</li> <li>Core was sawn and half core sent for analysis</li> <li>Sample preparation is industry standard,</li> </ul>                          |
| techniques<br>and sample<br>preparation                | <ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>        | <ul> <li>occurring at an independent commercial laboratory</li> <li>Samples were crushed to sub 6mm, split and pulverised to sub 75μm in order to produce a representative sub-sample for analysis</li> <li>Laboratory certified standards were used in each sample batch</li> <li>The sample sizes are considered to be appropriate to correctly represent the mineralisation style</li> </ul> |
| Quality of<br>assay data<br>and<br>laboratory<br>tests | <ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul> | <ul> <li>The assay methods employed are considered appropriate for near total digestion</li> <li>Laboratory certified standards were used in each sample batch</li> <li>Certified standards returned results within an acceptable range</li> </ul>  |
| Verification<br>of sampling<br>and<br>assaying         | <ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | Laboratory results are reviewed by Company geologists and laboratory technicians  |



| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
| Location of<br>data points  | <ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <ul> <li>Collars surveyed with handheld GPS</li> <li>Down hole surveys conducted with Camteq multishot digital camera</li> <li>Coordinate system used is MGA94 Zone 55</li> <li>Topographic control is based on a detailed 3D Digital Elevation Model</li> </ul>   |
| Data<br>spacing<br>and<br>distribution                              | <ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>                                 | Only 2 drill holes have been completed at the<br>Jasper Flats prospect to date. There is<br>approximately 100m between these 2 holes   |
| Orientation<br>of data in<br>relation to<br>geological<br>structure | <ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul> | <ul> <li>Drill holes are orientated perpendicular to the perceived strike of the host lithologies</li> <li>Drill holes are drilled at a dip based on logistics and dip of anomaly to be tested</li> <li>The orientation of the drilling is designed to not bias sampling</li> <li>The orientation of the drill core is determined using a Camteq Digital Orientation Tool</li> </ul> |
| Sample<br>security  | The measures taken to ensure sample security.  | Samples have been overseen by company<br>geologists during transport from site to Intertek<br>Genalysis laboratories, Townsville.  |
| Audits or reviews   | The results of any audits or reviews of sampling techniques and data.  | No audits or reviews have been carried out at this point   |



## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
| Mineral<br>tenement and<br>land tenure<br>status | <ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>  | <ul> <li>The drilling was conducted on Exploration Permit EPM16929</li> <li>EPM16929 is held by Cromarty Pty Ltd. (a wholly owned subsidiary of Red River Resources) and forms part of Red River's Thalanga Zinc Project</li> <li>The Gudjalla Native Title group were engaged for cultural heritage clearances of drill pads</li> <li>The Exploration Permits are in good standing</li> </ul> |
| Exploration done by other parties                | Acknowledgment and appraisal of exploration by other parties.   | Historic Exploration was carried out by<br>PanContinental Mining & RGC Exploration. This<br>included drilling and geophysics   |
| Geology  | Deposit type, geological setting and style of mineralisation.   | <ul> <li>The exploration model is Volcanic Hosted Massive<br/>Sulphide (VHMS) base metal mineralisation</li> <li>The regional geological setting is the Mt Windsor<br/>Volcanic Sub-province, consisting of Cambro-<br/>Ordovician marine volcanic and volcano-<br/>sedimentary sequences</li> </ul>   |
| Drill hole<br>Information                        | <ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including, easting and northing, elevation or RL, dip and azimuth, down hole length, interception depth and hole length.</li> <li>If the exclusion of this information is justified the Competent Person should clearly explain why this is the case.</li> </ul>   | <ul> <li>See Table 2 – Drill Hole Details</li> <li>See Appendix 1 – Assay Details</li> </ul>   |
| Data aggregation methods                         | <ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values</li> </ul> | <ul> <li>Interval length weighted assay results are reported Significant Intercepts are chosen based on the context of the results, for example significant intercepts relating to resource definition are generally &gt; 5% Zn Equivalents.</li> <li>The Zn Eq. formula used for reporting is: Zn% + 0.9*Pb% + 3.3*Cu% + 0.025* Ag ppm + 0.5* Au ppm</li> </ul>                               |



| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
|   | should be clearly stated.   |  |
| Relationship<br>between<br>mineralisation<br>widths and<br>intercept<br>lengths | <ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul> | <ul> <li>The stratigraphy is interpreted to be steeply dipping drill holes have been angled to intercept the stratigraphy as close to perpendicular as possible.</li> <li>Down hole intercepts are reported. True widths are likely to be 60-70% of the down hole widths.</li> </ul> |
| Diagrams  | <ul> <li>Appropriate maps and sections (with<br/>scales) and tabulations of intercepts<br/>should be included for any significant<br/>discovery being reported. These<br/>should include, but not be limited to<br/>a plans and sections.</li> </ul>  | Refer to plans and sections within report  |
| Balanced<br>reporting   | Where comprehensive reporting of<br>all Exploration Results is not<br>practicable, representative reporting<br>of both low and high grades and/or<br>widths should be practiced to avoid<br>misleading reporting of Exploration<br>Results.   | The accompanying document is considered to represent a balanced report   |
| Other<br>substantive<br>exploration<br>data                                     | Other exploration data, if meaningful<br>and material, should be reported.  | All meaningful and material data is reported   |
| Further work  | The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  | Down hole geophysics is planned based on the results of this current program   |

+Rule 5.5

# **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

Quarter ended ("current quarter")

35 100 796 754

December 2016

| Consolidated statement of cash flows |  | Current quarter<br>\$A'000 | Year to date ( 6<br>months)<br>\$A'000 |
|--------------------------------------|--|----------------------------|--|
| 1.                                   | Cash flows from operating activities           |                            |  |
| 1.1                                  | Receipts from customers                        | 53                         | 110                                    |
| 1.2                                  | Payments for                                   |                            |  |
|                                      | (a) exploration & evaluation                   | (315)                      | (808)                                  |
|                                      | (b) development                                | (238)                      | (427)                                  |
|                                      | (c) production                                 |                            |  |
|                                      | (d) staff costs                                | (486)                      | (878)                                  |
|                                      | (e) administration and corporate costs         | (961)                      | (1,109)                                |
| 1.3                                  | Dividends received (see note 3)                |                            |  |
| 1.4                                  | Interest received                              | 65                         | 146                                    |
| 1.5                                  | Interest and other costs of finance paid       | (1)                        | (1)                                    |
| 1.6                                  | Income taxes paid                              |                            |  |
| 1.7                                  | Research and development refunds               |                            |  |
| 1.8                                  | Other (provide details if material)            |                            |  |
| 1.9                                  | Net cash from / (used in) operating activities | (1,883)                    | (2,967)                                |

| 2.  | Cash flows from investing activities |      |      |
|-----|--------------------------------------|------|------|
| 2.1 | Payments to acquire:                 |      |      |
|     | (a) property, plant and equipment    | (56) | (59) |
|     | (b) tenements (see item 10)          |      |      |
|     | (c) investments                      |      |      |
|     | (d) other non-current assets         |      |      |

<sup>+</sup> See chapter 19 for defined terms

1 September 2016 Page 1

| Con | solidated statement of cash flows                    | Current quarter<br>\$A'000 | Year to date ( 6<br>months)<br>\$A'000 |
|-----|--|----------------------------|--|
| 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) (Security bonds) | (2)                        | (2)                                    |
| 2.6 | Net cash from / (used in) investing activities       | (58)                       | (61)                                   |

| 3.   | Cash flows from financing activities  |         |         |
|------|---|---------|---------|
| 3.1  | Proceeds from issues of shares  | 14,081  | 23,062  |
| 3.2  | Proceeds from issue of convertible notes                                    |         |         |
| 3.3  | Proceeds from exercise of share options                                     | 352     | 1,358   |
| 3.4  | Transaction costs related to issues of shares, convertible notes or options | (926)   | (1,498) |
| 3.5  | Proceeds from borrowings  |         |         |
| 3.6  | Repayment of borrowings   | (1,500) | (1,500) |
| 3.7  | Transaction costs related to loans and borrowings                           |         |         |
| 3.8  | Dividends paid  |         |         |
| 3.9  | Other (provide details if material)   |         |         |
| 3.10 | Net cash from / (used in) financing activities                              | 12,007  | 21,422  |

| 4.  | Net increase / (decrease) in cash and cash equivalents for the period |         |         |
|-----|---|---------|---------|
| 4.1 | Cash and cash equivalents at beginning of period                      | 10,822  | 2,494   |
| 4.2 | Net cash from / (used in) operating activities (item 1.9 above)       | (1,883) | (2,967) |
| 4.3 | Net cash from / (used in) investing activities (item 2.6 above)       | (58)    | (61)    |
| 4.4 | Net cash from / (used in) financing activities (item 3.10 above)      | 12,007  | 21,422  |
| 4.5 | Effect of movement in exchange rates on cash held                     | -       |         |
| 4.6 | Cash and cash equivalents at end of period                            | 20,888  | 20,888  |

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

| 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<br>\$A'000 | Previous quarter<br>\$A'000 |
|-----|---|----------------------------|-----------------------------|
| 5.1 | Bank balances   | 11,153                     | 8,587                       |
| 5.2 | Call deposits   | 9,735                      | 2,235                       |
| 5.3 | Bank overdrafts   | -                          | -                           |
| 5.4 | Other (provide details)   | -                          | -                           |
| 5.5 | Cash and cash equivalents at end of quarter (should equal item 4.6 above)   | 20,888                     | 10,822                      |

| 6.      | Payments to directors of the entity and their associates                                | Current quarter<br>\$A'000 |
|---------|---|----------------------------|
| 6.1     | Aggregate amount of payments to these parties included in item 1.2                      | 144                        |
| 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 transaction items 6.1 and 6.2 | ns included in             |
| Directo | or fees   |                            |
|         |   |                            |
| 7.      | Payments to related entities of the entity and their associates                         | Current quarter<br>\$A'000 |
| 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 transaction items 7.1 and 7.2 | ns included in             |
|         |   |                            |

Page 3

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

| 8.  | Financing facilities available Add notes as necessary for an understanding of the position | Total facility amount at quarter end \$A'000 | Amount drawn at<br>quarter end<br>\$A'000 |
|-----|--|--|---|
| 8.1 | Loan facilities  | -  | -   |
| 8.2 | Credit standby arrangements  | 30   | -   |
| 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.

| 8.2 Credit card facility. |  |
|---------------------------|--|
|                           |  |
|                           |  |

| 9.  | Estimated cash outflows for next quarter                              | \$A'000 |
|-----|---|---------|
| 9.1 | Exploration and evaluation  | 750     |
| 9.2 | Development   | 2,500   |
| 9.3 | Production  | -       |
| 9.4 | Staff costs   | 800     |
| 9.5 | Administration and corporate costs (includes site Care & Maintenance) | 500     |
| 9.6 | Other (provide details if material)                                   | (80)    |
| 9.7 | Total estimated cash outflows   | 4,470   |

| 10.  | Changes in<br>tenements<br>(items 2.1(b) and<br>2.2(b) above)                                     | Tenement reference and location | Nature of interest | Interest at beginning of quarter | Interest<br>at end of<br>quarter |
|------|---|---------------------------------|--------------------|----------------------------------|----------------------------------|
| 10.1 | Interests in mining<br>tenements and<br>petroleum tenements<br>lapsed, relinquished<br>or reduced |                                 |                    |                                  |                                  |
| 10.2 | Interests in mining<br>tenements and<br>petroleum tenements<br>acquired or increased              |                                 |                    |                                  |                                  |

1 September 2016 Page 4

<sup>+</sup> See chapter 19 for defined terms

#### **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.

DR 11

|             | Monday                       |                 |
|-------------|------------------------------|-----------------|
|             |                              | 31 January 2017 |
| Sign here:  | (Director/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.

1 September 2016 Page 5

<sup>+</sup> See chapter 19 for defined terms