



## High Grade Zinc Results from Waterloo Drilling

### Highlights:

- Red River has received initial results from its infill and extension drilling program at the Waterloo polymetallic massive sulphide deposit. Assay results have been received for WL01, WL06 and WL07.
  - WL01 intersected 9.4m @ 9.5% Zn Eq. (0.9% Cu, 1.7% Pb, 8.8% Zn, 0.6 g/t Au and 36 g/t Ag) from 100.6m down hole
  - WL06 intersected 35.91m @ 12.6% Zn Eq. (1.7% Cu, 1.0% Pb, 4.9% Zn, 0.5 g/t Au and 39 g/t Ag) from 259.09m down hole
  - WL07 intersected 2.36m @ 10.1% Zn Eq. (1.1% Cu, 0.3% Pb, 5.6% Zn, 0.4 g/t Au and 19 g/t Ag) from 288.94m down hole
- WL11 is complete and intersected massive sulphide mineralisation from 196.9m to 199.0m down hole and has been submitted for assay. WL12 is in progress.
- The initial Waterloo infill and extension drilling program consists of 12 holes. The program is expected to be completed in Q4 CY2017.
- Results will be used in the maiden Waterloo Ore Reserve estimate, expected to be completed in H1 CY2018.

Australia's newest zinc producer Red River Resources Limited (ASX: RVR) ("Red River" or the "Company") is pleased to announce initial assay results from an infill and extension drilling program at Waterloo, part of its Thalanga Zinc Project in Queensland.

To date, Red River has received assay results for WL01, WL06 and WL07. Significant results include:

- WL01 intersected **9.4m @ 9.5% Zn Eq. (0.9% Cu, 1.7% Pb, 8.8% Zn, 0.6 g/t Au and 36 g/t Ag)** from 100.6m down hole;
- WL06 intersected **35.91m @ 12.6% Zn Eq. (1.7% Cu, 1.0% Pb, 4.9% Zn, 0.5 g/t Au and 39 g/t Ag)** from 259.09m down hole; and
- WL07 intersected **2.36m @ 10.1% Zn Eq. (1.1% Cu, 0.3% Pb, 5.6% Zn, 0.4 g/t Au and 19 g/t Ag)** from 288.94m down hole.

WL11 has been completed and submitted for assay, with WL12 in progress. WL11 intersected 2.1m of massive sulphide mineralisation from 196.9m downhole.

The drilling is part of an infill and extension program at Waterloo to test the potential to extend the known resource and to generate data to allow a maiden Waterloo Ore Reserve to be calculated by 1H CY2018. Waterloo is currently scheduled to be the third deposit mined at the Company's Thalanga Zinc Project, which commenced concentrate production in September 2017.

Waterloo is Red River's highest grade deposit with a current Mineral Resource estimate of 707kt @ 19.1% Zn Eq.

Red River has received assay results for drill holes WL01, WL06 and WL07 (Table 1) from its ongoing Waterloo drilling program. WL11 (Table 2) has been completed and will be submitted for assay, with results expected shortly and WL12 is in progress.

Table 1 Drill hole assay summary, Thalanga Zinc Project (Waterloo)

Hole ID	From (m)	To (m)	Intersection (m) <sup>(1)</sup>	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
WL01	100.6	110.0	9.4	0.9%	1.7%	8.8%	0.6 g/t	36 g/t	9.5% <sup>(2)</sup>
WL06	259.09	295.0	35.91	1.7%	1.0%	4.9%	0.5 g/t	39 g/t	12.6%
WL07	288.94	291.3	2.36	1.1%	0.3%	5.6%	0.4 g/t	19 g/t	10.1%

(1) Downhole width  
(2) Transition Zn Eq.

Table 2 Drill hole geological information summary, Thalanga Zinc Project (Waterloo)

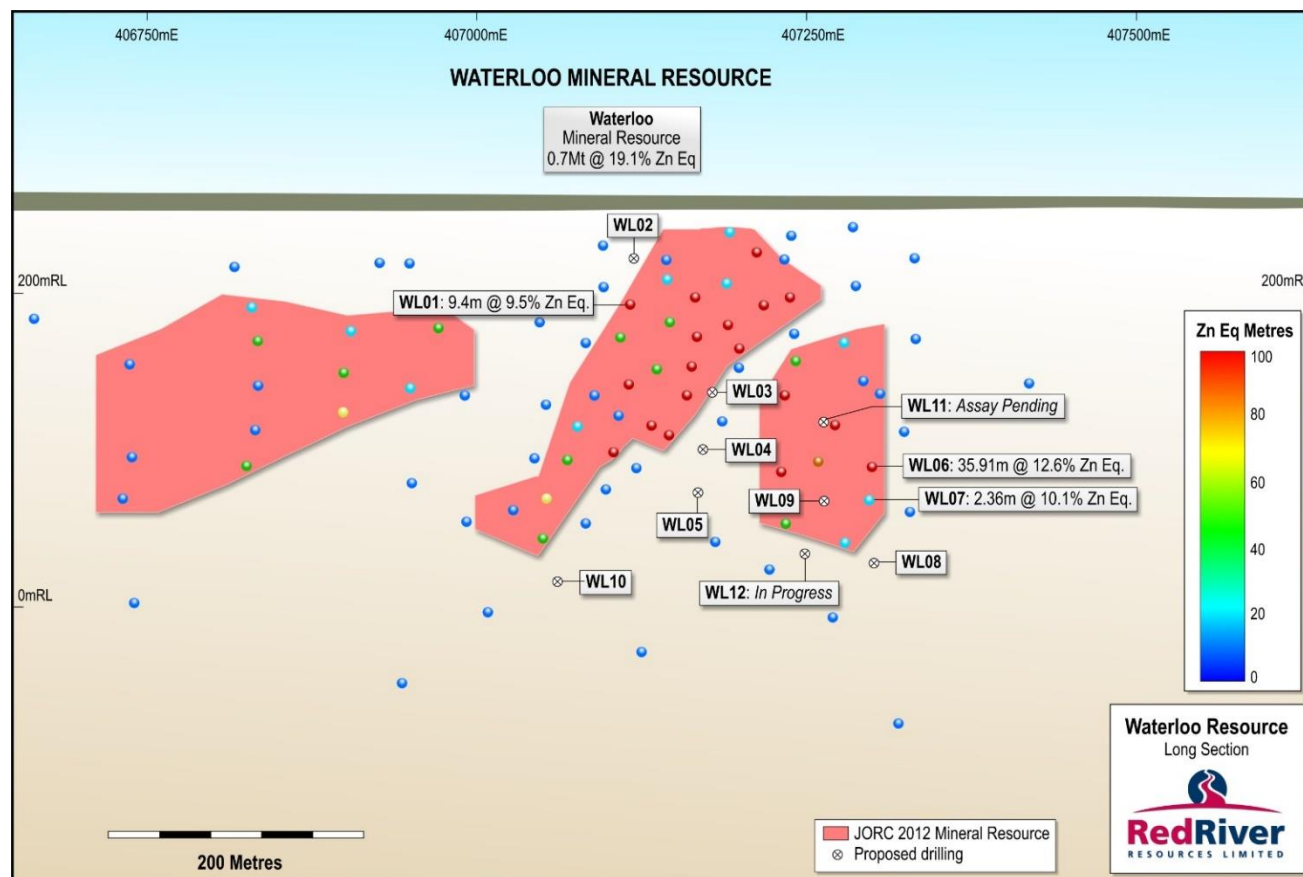
Hole ID	From (m)	To (m)	Intersection (m) <sup>(1)</sup>	Mineralised Intercept Description	Status
WL11	196.9	199.0	2.1	Massive sulphide mineralisation	Assays Pending

(1) Downhole width

Table 3 Drill hole information summary, Thalanga Zinc Project (Waterloo)

Hole ID	Depth (m)	Dip	Azi (MGA)	East (MGA)	North (MGA)	RL (MGA)	Lease ID	Hole Status
WL01	143.92	-47	335	407149.5	7746129	323	EPM 10582	Completed
WL06	345.5	-57	339	407349	7746125	320	EPM 10582	Completed
WL07	369.4	-60	339	407349	7746125	320	EPM 10582	Completed
WL11	264.6	-64	337	407292.7	7746173	318	EPM 10582	Completed
WL12	DRILLING	-64	337	407317	7746097	320	EPM 10582	In progress

Figure 1 Waterloo Long Section



The Waterloo Deposit polymetallic massive sulphide orebody is located 40km East of Thalanga (straight line) and 105 km by road from Thalanga (refer to Figure 2). In 1985, the Waterloo deposit was found by drilling through the overlying Campaspe Formation (approximately 50m thick) after a small outcrop of altered volcanic rock was recognised in an adjacent creek bed.

Figure 2 Waterloo Location

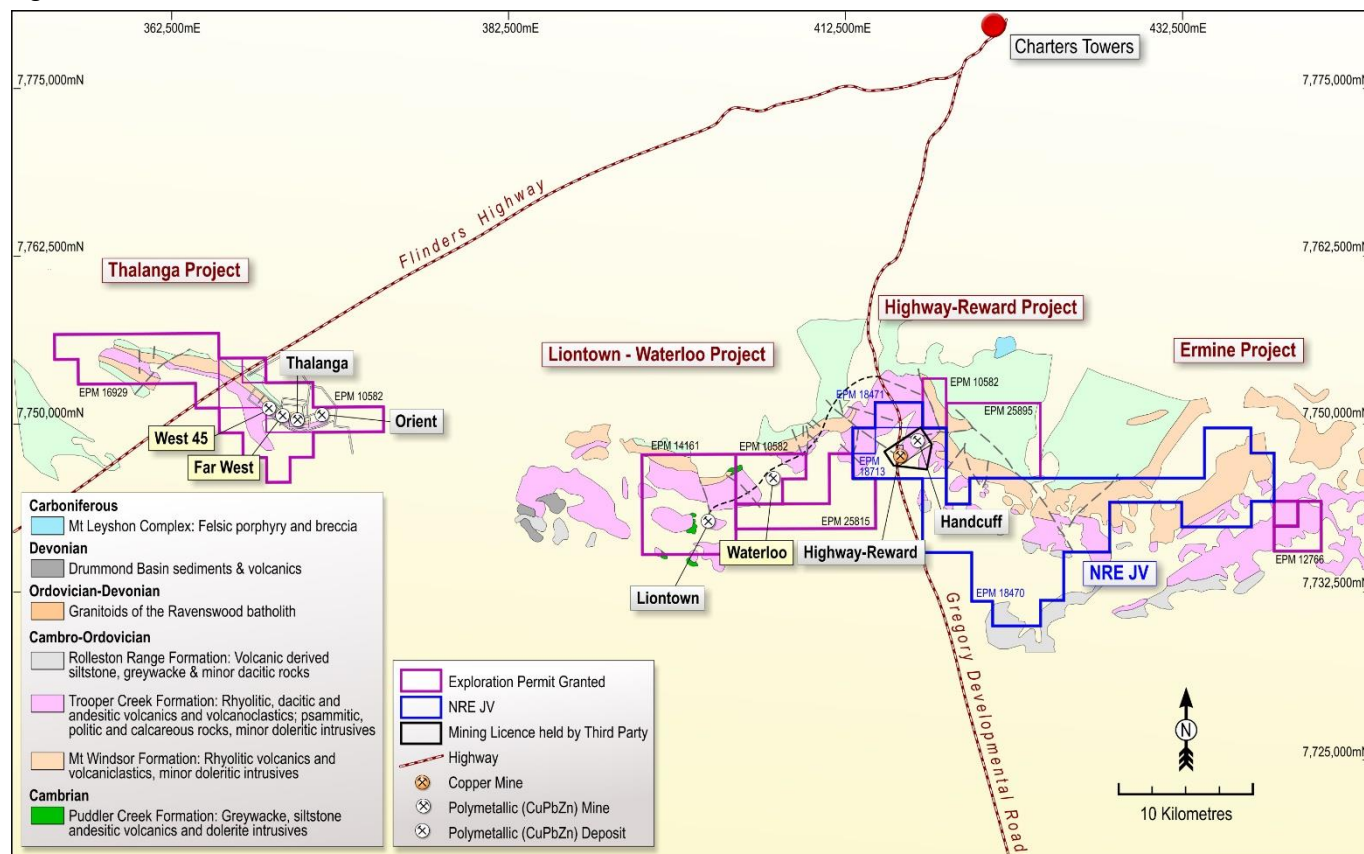


Table 4 Waterloo Mineral Resource Estimate

Resource Class	Tonnage (kt)	Cu (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)	Zn Eq. (%)
<i>Transition</i>							
Indicated	97	3.2	2.4	14.5	1.6	78	21.7
Inferred	69	0.8	1.1	6.4	0.4	24	7.8
Subtotal	166	2.2	1.9	11.1	1.1	55	15.9
<i>Fresh</i>							
Indicated	309	2.5	2.0	13.0	1.3	65	25.5
Inferred	232	0.9	0.8	8.3	0.4	28	13.0
Subtotal	541	1.8	1.5	11.0	0.9	49	20.1
<b>Total</b>	<b>707</b>	<b>1.9</b>	<b>1.6</b>	<b>11.0</b>	<b>0.9</b>	<b>50</b>	<b>19.1</b>
<i>Oxide</i>							
Inferred	55	0.2	2.3	0.1	3.7	15	-

Source: Mining One Consultants, 7 Feb 2015

Tonnages and grades are rounded. Discrepancies in totals may exist due to rounding.

Zinc equivalent (Zn Eq.) has been calculated using the metal selling prices, recoveries and other assumptions contained in the Appendix of this announcement. It is Red River's opinion that all elements included in the metal equivalent calculation have a reasonable potential to be recovered and sold. Zinc equivalent grade was not calculated for the oxide resource

## About Red River Resources (ASX: RVR)

RVR is the leading ASX pure play zinc producer, with its key asset being the high quality Thalanga Zinc Project in Central Queensland. RVR commenced concentrate production at the Thalanga Zinc Project in September 2017 and RVR is focused on maximising returns from the Project by increasing plant throughput and extending mine life through increasing Mineral Resources and Ore Reserves at deposits currently in the mine plan (West 45, Thalanga Far West and Waterloo), by converting Mineral Resources into Ore Reserves at Liontown and Orient and by continuing to aggressively explore our growing pipeline of high quality targets within the surrounding area.

On behalf of the Board,

**Mel Palancian**  
**Managing Director**  
Red River Resources Limited

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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 Alex Nichol who is a member of the Australasian Institute of Geoscientists, 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 Nichol consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

### Mineral Resource

The information in this report that relates to the estimation and reporting of the Waterloo Resource is based on and fairly represents, information and supporting documentation compiled by Mr Stuart Hutchin who is a Member of The Australasian Institute of Mining and Metallurgy, Member of the Australian Institute of Geoscientists and a full time employee of Mining One Consultants Pty Ltd.

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

## 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 the Waterloo 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

Metal	Fresh Mineralisation	Transition Mineralisation	Price
Copper	80%	58%	US\$3.00/lb
Lead	70%	0%	US\$0.90/lb
Zinc	88%	76%	US\$1.00/lb
Gold	50%	30%	US\$1,200/oz
Silver	65%	58%	US\$17.00/oz
FX Rate: A\$0.85:US\$1			

**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. It is the view of Red River that three separate saleable base metal concentrates will be produced at Thalanga. 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:

$$\begin{aligned} \text{Zn Eq. (fresh mineralisation)} &= (\text{Zn}\% \times 1.0) + (\text{Cu}\% \times 3.3) + (\text{Pb}\% \times 0.9) + (\text{Au ppm} \times 0.5) + (\text{Ag ppm} \times 0.025) \\ \text{Zn Eq. (transition mineralisation)} &= (\text{Zn}\% \times 0.84) + (\text{Cu}\% \times 2.5) + (\text{Pb}\% \times 0.0) + (\text{Au ppm} \times 0.4) + (\text{Ag ppm} \times 0.01) \end{aligned}$$

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

Metal	Copper	Lead	Zinc	Gold	Silver
Fresh Mineralisation	3.3	0.9	1.0	0.5	0.025
Transition Mineralisation	2.5	0.0	0.84	0.4	0.01

## APPENDIX 1

### ASSAY DETAILS

Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq.%
WL01	94.00	95.00	1.00	0.0	0.1	0.1	bdl	bdl	0.1
WL01	95.00	96.00	1.00	0.0	0.1	0.1	bdl	bdl	0.1
WL01	96.00	97.00	1.00	0.0	0.1	0.1	bdl	bdl	0.1
WL01	97.00	98.00	1.00	0.0	0.1	0.1	bdl	bdl	0.1
WL01	98.00	99.00	1.00	0.0	0.1	0.1	0.1	bdl	0.1
WL01	99.00	100.60	1.60	0.4	0.5	0.2	0.5	25	1.2
WL01	100.60	102.10	1.50	0.6	0.4	6.9	0.4	43	7.4
WL01	102.10	103.60	1.50	1.6	0.9	16.0	1.1	36	17.5
WL01	103.60	105.30	1.70	0.2	0.8	4.3	1.0	28	4.0
WL01	105.30	106.00	0.70	3.3	11.0	14.8	1.4	125	20.7
WL01	106.00	107.50	1.50	0.9	1.5	6.7	0.4	27	7.9
WL01	107.50	109.00	1.50	0.2	0.9	8.1	0.2	13	7.4
WL01	109.00	110.00	1.00	0.3	1.5	8.2	0.1	22	7.7
WL01	110.00	111.20	1.20	1.1	0.9	1.4	0.8	33	3.9
WL01	111.20	113.00	1.80	0.0	0.1	0.1	1.0	28	0.2
WL01	113.00	114.30	1.30	0.0	0.0	0.0	0.0	1	0.0
WL01	114.30	116.00	1.70	0.0	0.0	0.0	0.1	5	0.0
WL01	116.00	117.50	1.50	0.0	0.0	0.0	0.0	1	0.1
WL01	117.50	119.00	1.50	0.0	0.0	0.0	0.0	bdl	0.1
WL06	256.00	257.00	1.00	0.0	0.0	0.0	0.1	2	0.3
WL06	257.00	258.00	1.00	0.0	0.0	0.0	0.1	1	0.2
WL06	258.00	259.09	1.09	0.0	0.0	0.0	0.2	2	0.3
WL06	259.09	260.00	0.91	2.2	1.2	7.0	2.5	60	18.3
WL06	260.00	260.80	0.80	1.0	1.1	5.9	0.8	42	11.8
WL06	260.80	262.00	1.20	0.3	0.0	0.2	0.2	5	1.4
WL06	262.00	263.00	1.00	0.0	0.0	0.1	0.2	2	0.3
WL06	263.00	264.00	1.00	1.2	1.4	7.8	0.4	35	14.1
WL06	264.00	265.00	1.00	1.8	2.0	18.2	0.1	31	26.7
WL06	265.00	265.90	0.90	0.2	0.1	0.9	0.3	8	1.9
WL06	265.90	266.43	0.53	1.3	2.7	15.4	0.5	74	24.1
WL06	266.43	267.00	0.57	3.5	0.7	7.0	0.8	55	21.0
WL06	267.00	267.25	0.25	0.6	1.0	15.6	0.4	25	19.3
WL06	267.25	268.00	0.75	3.2	3.6	20.0	0.8	53	35.4
WL06	268.00	268.66	0.66	2.4	4.5	13.5	0.3	60	27.2
WL06	268.66	268.91	0.25	5.5	13.2	30.7	1.0	196	66.2
WL06	268.91	269.73	0.82	0.9	1.0	8.7	0.3	35	13.5
WL06	269.73	271.00	1.27	1.0	4.0	15.1	0.8	57	23.8
WL06	271.00	271.30	0.30	0.7	0.4	1.2	0.7	50	5.5
WL06	271.30	272.00	0.70	0.7	0.1	0.2	0.5	23	3.5
WL06	272.00	273.00	1.00	0.4	0.1	0.5	0.3	18	2.4
WL06	273.00	274.00	1.00	0.2	0.0	0.1	0.3	14	1.4
WL06	274.00	275.00	1.00	0.1	0.0	0.1	0.3	7	0.9
WL06	275.00	276.00	1.00	0.1	0.0	0.3	0.2	3	0.7
WL06	276.00	276.20	0.20	0.1	0.0	0.0	0.2	2	0.4
WL06	276.20	277.00	0.80	0.1	0.0	0.1	0.5	5	0.8



Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq.%
WL06	277.00	278.00	1.00	0.2	0.1	0.1	0.3	21	1.7
WL06	278.00	279.00	1.00	0.8	0.1	0.6	0.3	43	4.5
WL06	279.00	280.00	1.00	1.7	0.3	0.9	0.3	35	7.9
WL06	280.00	281.00	1.00	1.1	0.2	0.3	0.2	34	4.9
WL06	281.00	282.00	1.00	1.9	0.1	2.1	0.8	64	10.5
WL06	282.00	283.00	1.00	6.4	0.3	2.2	0.6	33	24.7
WL06	283.00	284.00	1.00	5.2	0.6	5.2	0.2	35	24.0
WL06	284.00	285.00	1.00	5.5	2.0	8.6	0.5	56	30.4
WL06	285.00	286.00	1.00	3.6	1.0	3.3	0.2	34	17.0
WL06	286.00	287.00	1.00	3.7	1.8	8.1	0.2	67	23.9
WL06	287.00	287.30	0.30	3.5	1.9	12.2	0.4	61	27.1
WL06	287.30	288.00	0.70	1.9	1.5	3.2	0.9	67	12.9
WL06	288.00	289.00	1.00	2.2	0.6	2.5	0.7	64	12.3
WL06	289.00	289.36	0.36	0.3	0.2	0.7	0.4	22	2.8
WL06	289.36	290.00	0.64	1.0	0.7	2.2	0.7	48	7.6
WL06	290.00	291.00	1.00	2.2	0.5	2.5	0.4	80	12.5
WL06	291.00	292.00	1.00	2.0	0.5	1.6	0.3	45	10.0
WL06	292.00	293.00	1.00	2.6	1.1	8.8	0.5	73	20.5
WL06	293.00	294.00	1.00	0.7	0.2	3.3	0.3	42	7.1
WL06	294.00	295.00	1.00	0.2	0.1	3.4	0.5	24	5.2
WL06	295.00	296.00	1.00	0.0	0.0	0.6	1.1	12	1.6
WL06	296.00	296.73	0.73	0.1	0.0	0.1	0.6	5	0.8
WL06	296.73	297.00	0.27	0.1	0.0	0.1	0.5	5	0.9
WL06	297.00	298.00	1.00	0.1	0.0	0.6	0.2	4	1.2
WL06	298.00	298.34	0.34	0.1	0.0	2.8	0.1	3	3.3
WL06	298.34	299.00	0.66	0.1	0.0	0.2	0.2	3	0.7
WL06	299.00	300.00	1.00	0.0	0.0	0.1	0.2	2	0.4
WL06	300.00	301.00	1.00	0.1	0.0	0.0	0.1	2	0.4
WL06	301.00	302.05	1.05	0.1	0.0	0.0	0.2	3	0.4
WL06	302.05	302.55	0.50	0.1	0.0	0.2	0.3	6	1.0
WL06	302.55	303.00	0.45	0.0	0.0	0.1	0.1	2	0.2
WL06	303.00	304.00	1.00	0.0	0.0	0.0	0.0	1	0.1
WL06	304.00	305.00	1.00	0.0	0.0	0.0	0.1	1	0.1
WL06	305.00	306.00	1.00	0.0	0.0	0.0	0.0	0	0.1
WL06	306.00	307.00	1.00	0.0	0.0	0.0	0.0	0	0.1
WL06	307.00	308.00	1.00	0.0	0.0	0.0	0.0	1	0.1
WL06	308.00	308.60	0.60	0.0	0.0	0.0	0.0	0	0.1
WL06	308.60	309.00	0.40	0.0	0.0	0.1	0.0	0	0.1
WL06	309.00	310.00	1.00	0.0	0.0	1.5	0.0	1	1.6
WL06	310.00	311.00	1.00	0.0	0.0	0.1	0.0	0	0.1
WL06	311.00	312.00	1.00	0.0	0.0	0.1	0.0	0	0.2
WL06	312.00	313.00	1.00	0.0	0.0	0.3	0.0	0	0.4
WL06	313.00	314.00	1.00	0.0	0.0	0.5	0.0	0	0.6
WL06	314.00	315.00	1.00	0.0	0.0	0.1	0.0	0	0.2
WL06	315.00	316.00	1.00	0.0	0.0	0.0	0.0	0	0.0
WL06	316.00	317.00	1.00	0.0	0.0	0.0	0.0	0	0.0



Hole ID	From (m)	To (m)	Int (m)	Cu%	Pb%	Zn%	Au g/t	Ag g/t	Zn Eq.%
WL07	288.94	290.00	1.06	1.0	0.4	4.6	0.3	20	8.9
WL07	290.00	291.00	1.00	0.7	0.2	5.2	0.6	22	8.5
WL07	291.00	291.30	0.30	2.5	0.2	10.9	0.2	9	19.7
WL07	291.30	292.00	0.70	0.1	0.1	0.7	0.4	6	1.4
WL07	292.00	293.00	1.00	0.1	0.1	0.8	0.4	6	1.6
WL07	293.00	294.00	1.00	0.4	0.2	3.0	0.1	6	4.7

\*bdl – below detection limit

WL01 is classed as transition sulphide mineralisation for zinc equivalent calculation purposes

WL06 & WL07 are classed as fresh sulphide mineralisation for zinc equivalent calculation purposes

## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 0.2m to 1.8m 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. A selection of samples was also assayed for Au using a 30g Fire Assay technique</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Drilling techniques consist of;</li> <li>PCD or HQ drilling through the cover sequence and oxidised zone</li> <li>NQ2 diamond core drilling for the remainder of the drill holes.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Core is measured every meter with recovery and RQD taken over the meter interval</li> <li>Sample recovery is measured and recorded by company trained geology technicians and geologists</li> <li>Any issues with recovery is always checked against drillers run sheet.</li> <li>Ground conditions encountered to date have been variable from good to poor. Core recovery has however been very good</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Holes are logged to a level of detail that will support mineral resource estimation.</li> <li>Qualitative logging includes lithology, alteration,</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>structures and textures</p> <ul style="list-style-type: none"> <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> </ul>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core was sawn and half core sent for analysis</li> <li>• Sample preparation is industry standard, 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>
<p><b>Quality of assay data and laboratory tests</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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>
<p><b>Verification of sampling and assaying</b></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Laboratory results are reviewed by Company geologists and laboratory technicians</li> </ul>
<p><b>Location of data points</b></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Collars surveyed with handheld GPS</li> <li>• Down hole surveys conducted with magnetic multi-shot digital camera</li> <li>• Coordinate system used is MGA94 Zone 55</li> <li>• Topographic control is based on a detailed 3D Digital</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	Elevation Model
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The drilling has been designed on approximately 40m x 40m spacing</li> <li>• This data spacing and distribution is sufficient to establish a degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures applied.</li> <li>• No sample compositing has been applied</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <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 Digital Orientation Tool</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples have been overseen by company staff during transport from site to Intertek Genalysis laboratories, Townsville.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews have been carried out at this point</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The drilling was conducted on EPM 10582</li> <li>EPM 10582 is held by Cromarty Pty Ltd. (a wholly owned subsidiary of Red River Resources) and form part of Red River's Thalanga Zinc Project</li> <li>No Native Title exists over EPM 10582</li> <li>Cultural clearance is conducted in partnership with the Gudjala People</li> <li>The Leases are in good standing</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Historic Exploration was carried out by PanContinental Mining &amp; RGC Exploration. This included drilling and geophysics</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The exploration model is Volcanic Hosted Massive Sulphide (VHMS) base metal mineralisation</li> <li>The regional geological setting is the Mt Windsor Volcanic Sub-province, consisting of Cambro-Ordovician marine volcanic and volcano-sedimentary sequences</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>See Table 3 – Drill Hole Details</li> <li>See Appendix 1 – Assay Details</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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 should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <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>Refer to Appendix for metal equivalent calculation methodology</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The mineralisation is interpreted to be steeply dipping. Drill holes have been angled to intercept the mineralisation 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>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plans and sections.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to plans and sections within report</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The accompanying document is considered to represent a balanced report</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All meaningful and material data is reported</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further drilling is planned based on the results of this current program</li> </ul>