ASX Announcement

ASX Code: RVR

19 JULY 2022

Red River hits high-grade copper at Liontown

Highlights:

- **Recent results from Red River's 2022 Mineral Resource delineation drill program at Liontown include:**
  - **4.95m @ 19.5% Zn eq. incl 4.99% Cu from 288.75m (LTDD22052 – Gap Lode)**
  - **3.15m @ 11.3% Zn eq. incl 2.74% Cu from 168.0m (LTDD22195A – Gap Lode)**
  - **4.60m @ 14.6% Zn eq. from 204.75m (LTDD22059 – Main Lode 3)**
  - **4.85m @ 10.3% Zn eq. from 137.45m (LTDD22058 – Main Lode 1)**
  - **3.10m @ 11.2 % Zn eq. from 242.15m (LTDD22060 – Main Lode 3)**
- **A third diamond drill rig has commenced at Liontown**
- **Red River will begin construction at Liontown once the Native Title agreement is finalised and Environmental approvals are granted**
- **Red River will continue resource delineation and extensional drilling at Liontown over the next 12 months to increase confidence in the Mineral Resource.**

Red River Resources Limited (ASX: RVR) is pleased to announce additional results from its 2022 Mineral Resource delineation drilling program at Liontown, part of its Thalanga operations in northern Queensland.

Liontown contains a sulphide Mineral Resource of 4.1Mt @ 0.6% Cu, 1.9% Pb, 5.9% Zn 1.1 g/t Au and 29g/t Ag for 12.7% Zn Eq.

Figure 1: Copper dominant mineralisation of LTDD22052 (5% Cu)

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Red River's Mineral Resource delineation drilling program

Red River is undertaking a Mineral Resource delineation drilling program to increase confidence in the Liontown Resource, as it is developing Liontown as the third deposit as part of its Thalanga Operation.

Drilling aims to reduce the drill spacing across the Indicated and Inferred areas of the current Mineral Resource. Drilling will progress from targeting the Main Lode and Gap areas to the Western Footwall area and the Liontown East area towards the end of the program (Figure 2). This drilling will build confidence and allow the upgrade of Inferred Mineral Resources to the Indicated classification.

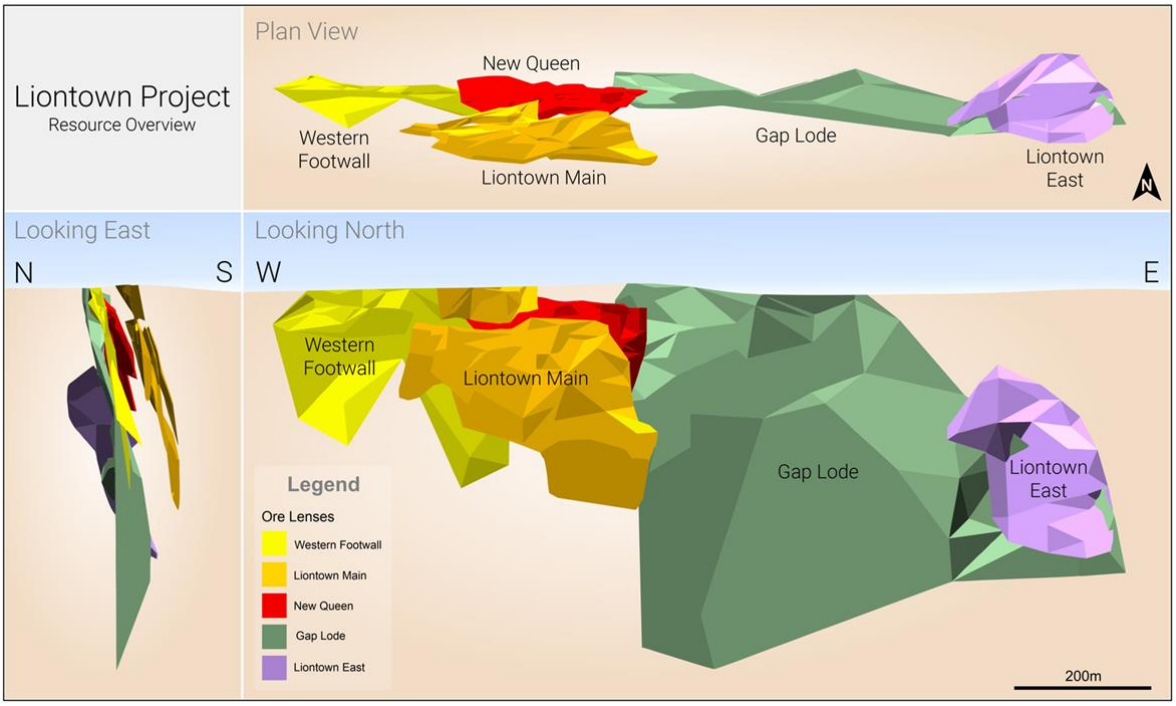

Figure 2: Plan and Sections of the mineralised zones at Liontown

Current activities at Liontown

Three diamond drill rigs are now drilling through the Main Lode, Gap Uppers and Western Footwall areas. Red River has completed 19 diamond holes on the Main Lode and 11 on the Gap Lode. Previous results from the program were reported in March and June 2022. Results for recently returned holes are shown in Table 1.

Table 1: Recent Liontown Project Intercepts

Hole ID	From (m)	To (m)	Intersection (m)*	Cu %	Pb %	Zn %	Au g/t	Ag g/t	Zn Eq. %	Lode	Zneq cut off
LTDD22058	137.45	142.30	4.85	0.38	1.65	6.52	0.30	44.7	10.3	Main 1	3%
LTDD22059	204.75	209.35	4.60	0.42	3.23	6.23	1.07	77.7	14.6	Main 3	3%
And	217.40	218.70	1.30	0.50	2.51	7.83	0.16	22.5	12.6	Main 1	3%
LTDD22060	242.15	245.25	3.10	0.25	2.21	5.42	0.54	77.1	11.2	Main 3	5%
And	273.00	275.90	2.90	0.44	0.25	0.83	0.07	7.7	2.8	Main 1	1%
LTDD22195A	168.00	171.15	3.15	2.74	0.10	0.28	0.81	8.3	11.3	Gap 1	3%
LTDD22052	218.00	221.50	3.50	0.38	0.02	0.14	1.66	1.1	4.8	Gap 1	3%
And	288.75	293.70	4.95	4.99	0.56	1.32	0.29	23.4	19.5	Gap 2	5%
LLRCD194	*no significant intercept*									Gap	

*Downhole width

Discussion of Liontown Main Lode results

The Liontown stratigraphy and mineralised system are inclined at 70 degrees to the south. The Liontown Main Lode area consists of three horizons/lodes: a lower horizon (Main 1), a central horizon in the upper west (Main 2), and a gold and silver rich upper horizon (Main 3). Main 1 has a 550m strike and is located along a sediment to rhyodacite pumice breccia contact. Main 2 and 3 are stacked above Main 1 within hanging wall sediments. The three horizons are spaced at 30m in the west but merge together in the central part of the system. Generally, the mineralised horizons are 1 to 5m true width.

Figure 3 is a long section of the recent intersections through the Main Lode area. The result of 4.6m @ 14.6% Zn eq in hole LTDD22059 builds confidence in the continuity of the favourable mineralisation located 45m to the east of it in LTDD21048 (5.7m @ 18.8% Zn eq, reported March 2022).

LTDD22060 displays moderate mineralisation strength at the edge of the system. Figure 5 shows a plan of collar locations which are also tabled in Appendix 1.

To date the results generally support the widths and grades of the mineralisation modelled for the Mineral Resource. Two holes completed in the upper central area of the Liontown Main Lode are awaiting assay.

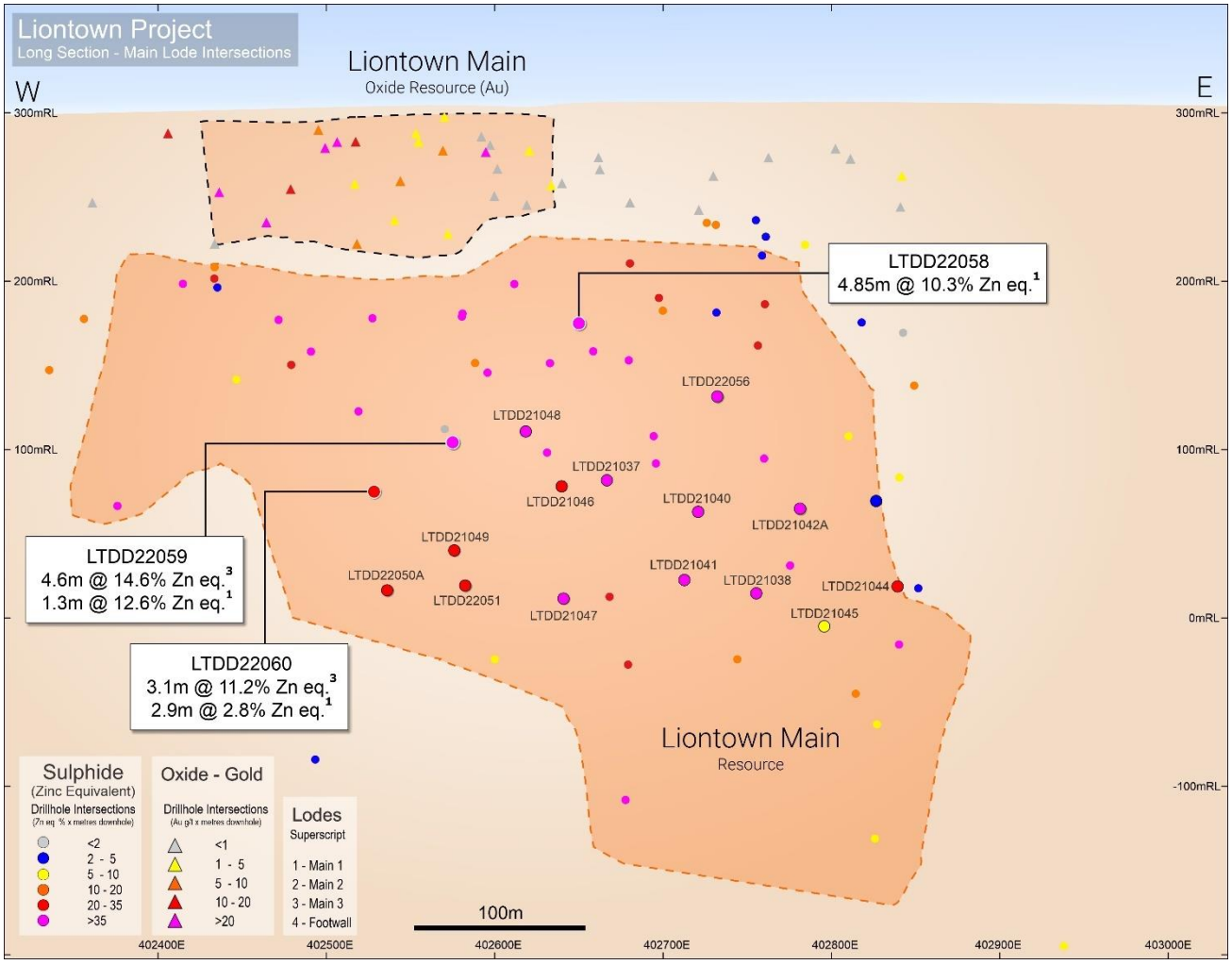

Figure 3: Long Section of Main Lode drill intersections (Main 1) and recent drill results

Discussion of Liontown Gap Lode results

The Gap is located to the east of the New Queen and Main lode areas (Figure 2) and contains multiple mineralised horizons within both the hanging wall sediment sequence and the footwall rhyodacite. Shallow reverse circulation drilling results were reported in February of 2022. The current diamond drill program aims to improve the understanding and confidence of the mineralisation in the area.

The diamond holes contain fantastic results with LTDD22052 intersecting a copper dominated footwall lode of 4.95m @ 19.5% Zn eq (including 5% Cu). Holes LTDD22195A and LLRCD194 tested the western edge of the system with hole LTDD220195A returning 3.2m @ 11.2% Zn eq. and hole LLRCD194 passing through 34m of background mineralisation of 0.5% Zn eq.

Drilling and geological interpretation continues at the Gap. Results will be reported as they become available.

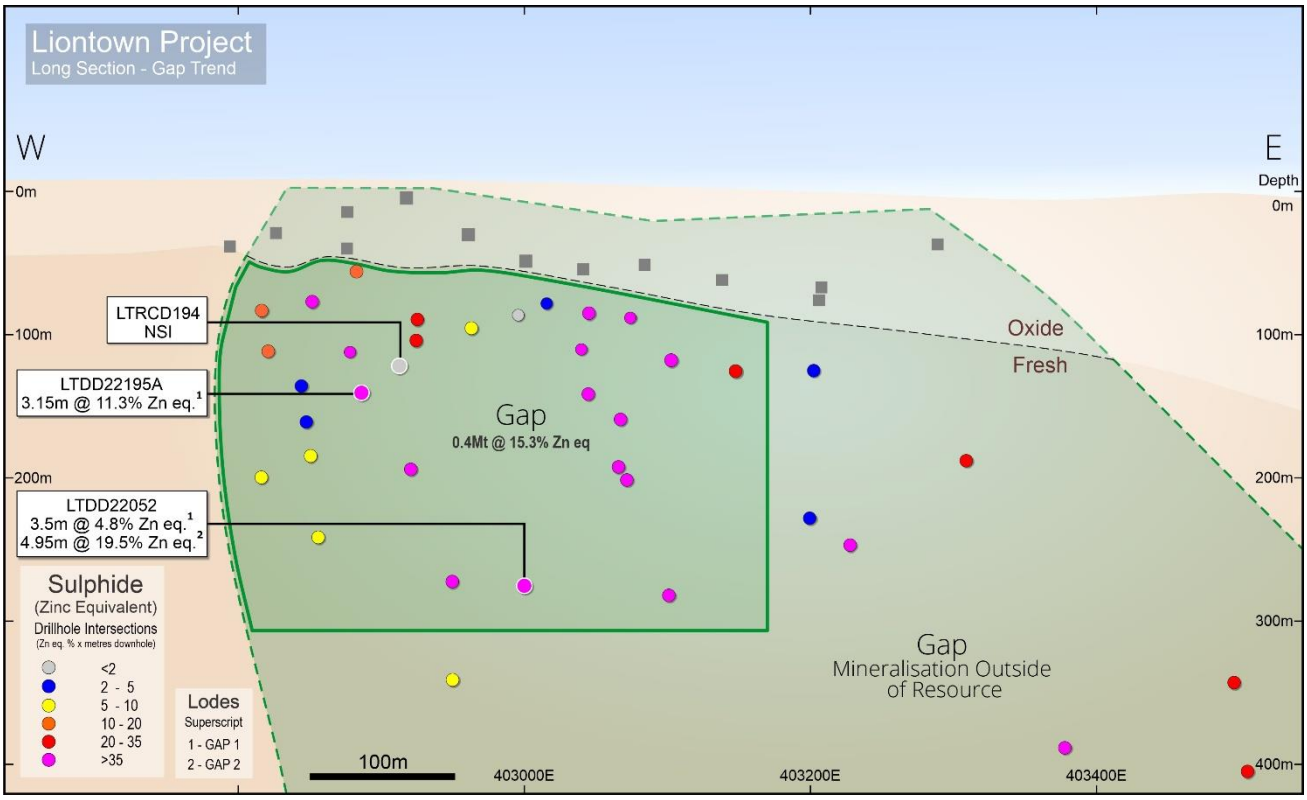

Figure 4: Long Section of Gap Lode drill intersections and recent drill results.

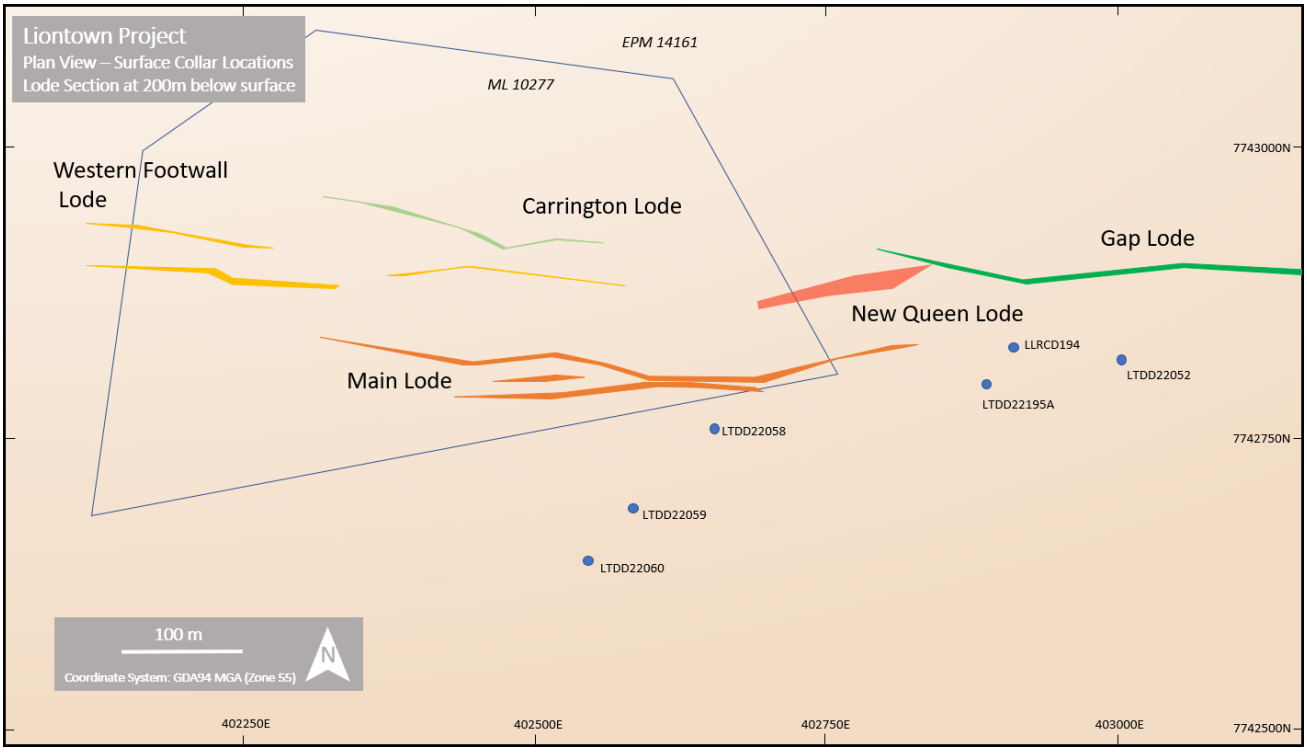

Figure 5: Collar locations of drillholes reported

Background

Red River's Liontown Project is located approximately 32km in a direct line from its Thalanga Operations and 107km by road (Figure 5). The total Liontown Project Mineral Resource (Fresh Sulphide) (Liontown + Liontown East) consists of 4.1Mt @ 0.6% Cu, 1.9% Pb, 5.9% Zn, 1.1 g/t Au & 29 g/t Ag (12.7% Zn Eq.) and a shallow oxide gold Mineral Resource of 113,000 tonnes @ 1.9g/t Au & 24 g/t Ag (ASX Announcement 11 March 2020).

The Liontown deposit is of volcanogenic-hosted-massive-sulphide (VHMS) style and is hosted within Cambro-Ordovician marine volcanic and volcano-sedimentary sequences of the Mt Windsor Volcanic Sub-province. The Liontown deposit demonstrates strong affinities with other well-known deposits in the region including the Liontown East, Waterloo and the operating Thalanga group deposits.

The Liontown deposit VHMS mineralisation comprises the **Main Lode**, **New Queen** and **Liontown East** (Figure 2) lenses. The Main Lode and Liontown East lenses are contained within a series of fine-grained siltstones (hanging wall) at their contact with a thick package of rhyodacitic pumice breccia (footwall), while the New Queen lenses are hosted within a series of schists within the footwall rhyodacitic pumice breccia. The mineralisation occurs as massive, banded, and stringer sulphides of sphalerite, pyrite, galena and chalcopyrite. Lenses are capped near surface by gold bearing oxide material.

The **Western Footwall** and **Gap** (Figure 2) are gold-copper dominant polymetallic lodes of mineralisation with a late-stage structural influence and hosted in the footwall pumice breccia. This late structure locally intersects and overprints the New Queen VHMS mineralisation near the surface. High-grade Au-Cu structurally controlled mineralisation was historically mined from 1905-1911 as the Carrington lode. The oxide zone of the New Queen was also historically mined with minor tonnages reported from 1951-1963.

A plan projection (Figure 6) of the five polymetallic targets projected to the 150m RL (150m below surface) shows the strong stratigraphical control from the predominantly E-W lithology, that dips approximately 60-70 degrees to the south.

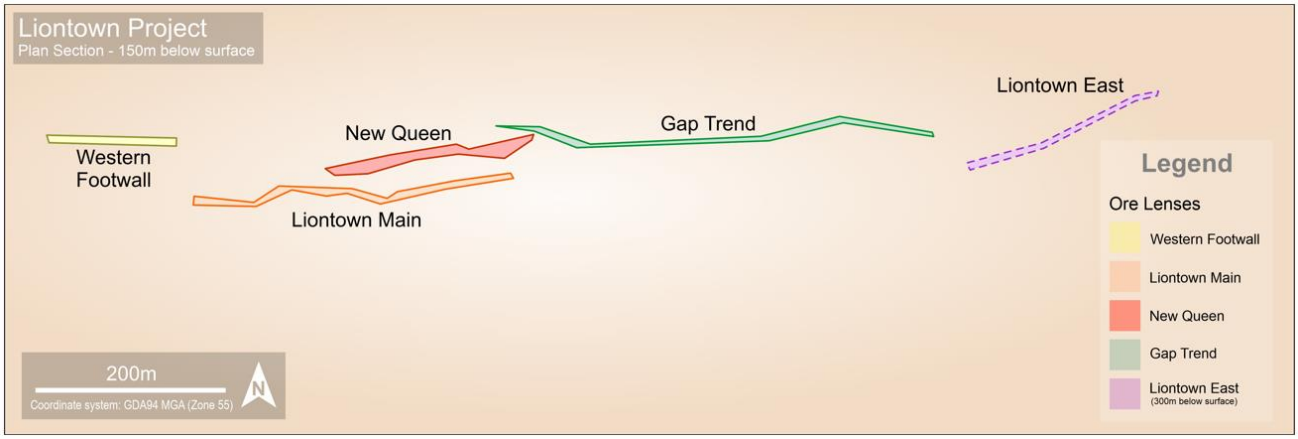

Figure 6: Plan projection at the -150mRL showing the main polymetallic deposits at Liontown

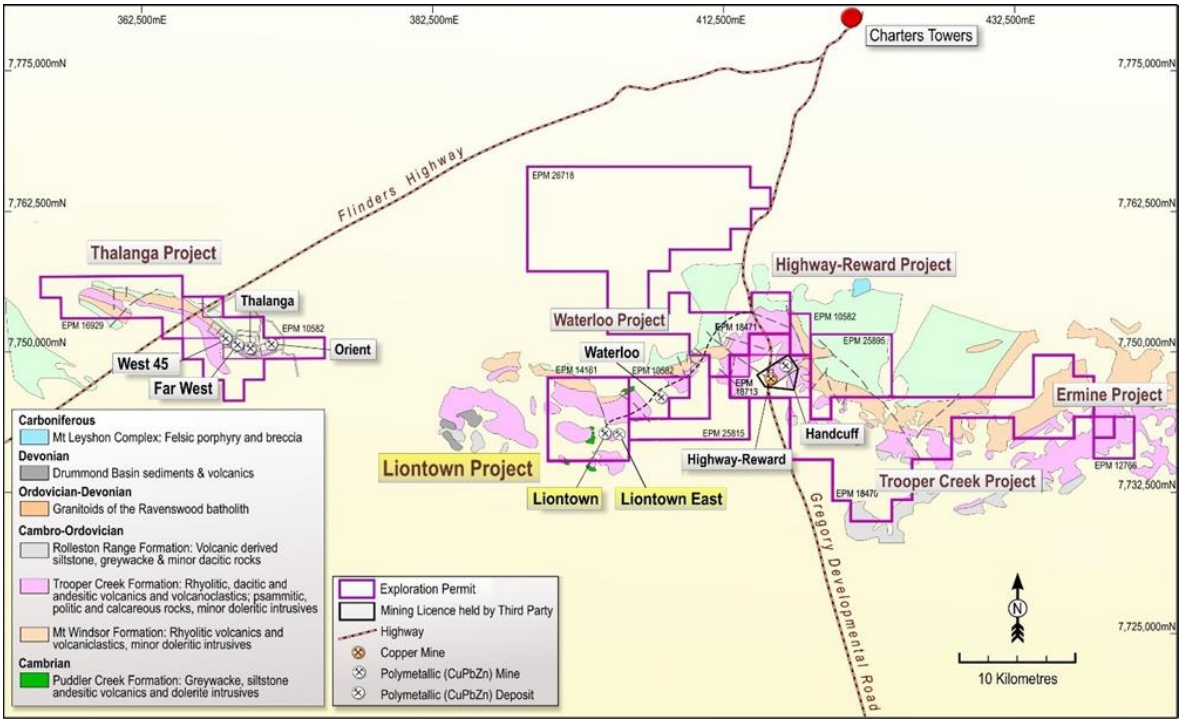

Figure 7: Location of Liontown

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 Liontown Project (Liontown and Liontown East) and from ongoing metallurgical data generated from operational activities at Thalanga (processing West 45 and Far West). The Liontown Project is related to and of a similar style of mineralisation to the Thalanga Deposit (West 45 and Far West) and it is appropriate to apply similar recoveries. The Metallurgical Recovery for each metal is shown below in Table 2.

Metal Prices and Foreign Exchange assumptions are set as per internal Red River price forecasts and are shown below in Table 2.

Table 2: Metallurgical Recoveries and Metal Prices

Metal	Metallurgical Recoveries	Price
Copper	80%	US$3.00/lb
Lead	70%	US$0.90/lb
Zinc	88%	US$1.00/lb
Gold	65%	US$1,200/oz
Silver	65%	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 from the Liontown Project. Payable metal factors are detailed below in Table 3.

Table: 3 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:

Zn Eq. = (Zn%*1.0) + (Cu%*3.3) + (Pb%*0.9) + (Au ppm*2.0) + (Ag ppm*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 5: Metal Equivalent Factors

Metal	Copper	Lead	Zinc	Gold	Silver
Metal Equivalent Factor	3.3	0.9	1.0	2.0	0.025

Competent Persons Statement

Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr Peter Carolan who is a member of Australian 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 Carolan consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

About Red River Resources (ASX: RVR)

RVR is building a multi-asset operating business focused on base and precious metals with the objective of delivering prosperity through lean and clever resource development. RVR's foundation asset is the Thalanga Base Metal Operation in Northern Queensland, which was acquired in 2014 and where RVR commenced copper, lead and zinc concentrate production in September 2017. RVR has commenced production at the high-grade Hillgrove Gold Operation in New South Wales which was acquired in 2019. The Hillgrove Operation is a key part of RVR's strategy to build a multi-asset operating business focused on base and precious metals.

On behalf of the Board,

Mel Palancian
Managing Director
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Appendix 1

Table 6: Drill hole information summary for reported holes

Hole ID	Total Depth (m)	Dip	Azimuth	East (MGA)	North (MGA)	RL (MGA)	GRID_NAME	Hole Type	Tenement	Comment
LTDD22058	158.4	-59	358	402654.89	7742757.35	293.93	MGA94_55	DDH	EPM 14161	
LTDD22059	232	-54	359	402580.00	7742690.00	292.00	MGA94_55	DDH	EPM 14161	
LTDD22060	280.7	-55	357.8	402541.00	7742651.00	291.00	MGA94_55	DDH	EPM 14161	
LTDD22052	328	-76	002.8	403003.2	7742818.56	298.96	MGA94_55	DDH	EPM 14161	
LTDD22195A	221.4	-60	000	402888.5	7742796.40	301.3	MGA94_55	DDH	EPM 14161	
LLRCD194	170.9	-60	006.8	402910.69	7742828.45	298.8	MGA94_55	RC/DDH	EPM 14161	

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
Sampling techniques	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. Include reference to measures taken to ensure sample retrospectivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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.	Diamond drilling (DD) techniques were used to obtain samples. No samples were collected from mud rotary drilling. Diamond core was placed in core trays for logging and sampling. Half core samples were nominated by the geologist from diamond core based on visual inspection of mineralisation. Intervals ranged from 0.3 to 1.4m based on geological boundaries Diamond samples were sawn in half using an onsite core saw. All Red River samples were sent to Intertek Genalysis Laboratories Townsville. Samples were crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis. Analysis of all Red River samples 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, & Zr was undertaken. A selection of samples was also assayed for Au using a 25g Fire Assay technique.
Drilling 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).	Red River diamond drilling techniques consist of; HQ3 diamond core drilling until competent rock NQ2 diamond core and navigational drilling for the remainder of the drill holes.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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.	Sample recovery is measured and recorded by company trained geology technicians. Minimal core loss mostly at the top of the drill hole has been recorded at Liontown. Recovery in ore zones from Liontown Resources Limited diamond drilling is typically near 100%.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Holes are logged to a level of detail that would support mineral resource estimation. Qualitative logging includes lithology, alteration and textures. Quantitative logging includes sulphide and gangue mineral percentages. All drill core was photographed.

Criteria	JORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	All drill holes have been logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled.	Core was sawn, and half core sent for assay. Sample preparation is industry standard, occurring at an independent commercial laboratory which has its own internal Quality Assurance and Quality Control procedures. Samples were crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis. Laboratory certified standards were used in each sample batch. The sample sizes are considered to be appropriate to correctly represent the mineralisation style.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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.	The assay methods employed are considered appropriate for near total digestion. Laboratory certified standards were used in each sample batch. Certified standards returned results within an acceptable range. No field duplicates are submitted for diamond core.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Laboratory results have been reviewed by Company geologists and laboratory technicians. No twinned holes were drilled for this data set.
Location of data points	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. Specification of the grid system used. Quality and adequacy of topographic control.	A portion of Red River collars surveyed with RTKGPS and others by hand-held. Re-survey of 105 historic drill collars was carried out by Liontown Resources Limited. Down hole surveys conducted with digital magnetic multi-shot camera at 20-40m intervals. A portion of drill holes were surveyed by multi-shot survey. Coordinate system used is MGA94 Zone 55 Topographic control is based on a detailed 3D Digital Elevation Model.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.	The current drill spacing is approximately 40-150m. No sample compositing has been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	Drill holes are orientated perpendicular to the perceived strike of the host lithologies where possible. The orientation of the multiple lenses varies resulting in some holes resulting in less than perpendicular intersections. Drill holes are drilled at a dip based on logistics and dip of anomaly to be tested. The orientation of the drilling is designed to not bias sampling.
Sample security	The measures taken to ensure sample security.	Samples have been overseen by company staff during transport from site to Intertek 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.

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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. 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.	The drilling was conducted on Mining Lease 10277 and Exploration Permit EPM 14161. ML 10277 and EPM 14161 are held by Cromarty Pty Ltd. (a wholly owned subsidiary of Red River Resources) and forms part of Red River's Thalanga Zinc Project. Red River engaged Native Title Claimants, the Gudjalla People to conduct cultural clearances of drill pads and access tracks The Exploration Permits are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historic Exploration was carried out by Esso Exploration, Liontown Resources, Nickle Mines, Great Mines & Pan Continental Mining. Work programs included drilling and geophysics
Geology	Deposit type, geological setting and style of mineralisation.	The exploration model is Volcanic Hosted Massive Sulphide (VHMS) base metal mineralisation. The regional geological setting is the Mt Windsor Volcanic Sub-province, consisting of Cambro-Ordovician marine volcanic and volcano-sedimentary sequences.
Drill hole Information	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. If the exclusion of this information is justified the Competent Person should clearly explain why this is the case.	See Appendix 1 – Drill Hole Details
Data aggregation methods	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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	Interval length weighted assay results are reported Significant Intercepts relate to assay results to either > 5%, > 3% or >1 % Zn Equivalent. Zn equivalent formula utilised is: Zn% + (Cu%*3.3) + (Pb%*0.9) + (Au ppm*2) + (Ag ppm*0.025). Where core loss occurs the average length-weighted grade of the two adjacent samples were attributed to the interval for the purpose of calculating intersection. The maximum interval of missing core incorporated in the reported intersection is 1 metre.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The mineralisation is interpreted to be dipping at approximately 65 to 90 degrees, drill holes have been designed to intercept the mineralisation as close to perpendicular as possible.

Criteria	JORC Code explanation	Commentary
	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').	Down hole intercepts are reported. True widths are likely to be approximately 30 to 80% of the down hole widths.
Diagrams	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.	Refer to plans and sections within report.
Balanced reporting	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.	The accompanying document is considered to represent a balanced report.
Other substantive exploration data	Other exploration data, if meaningful 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).	Further Drilling at Liontown is ongoing.