

Red River sampling returns high-grade silver at Orient

Highlights

- Reconnaissance sampling from Orient prospect confirms presence of high-grade silverindium-lead-zinc mineralisation
- East Orient sampling returned assays up to 1,365 g/t Ag, 444 g/t In, 25.8% Pb and 18.7% Zn
- West Orient sampling returned assays up to 1,730 g/t Ag, 356 g/t In, 39.1% Pb and 32.1% Zn
- The Queensland Government (Department of Natural Resource, Mines and Energy) Collaborative Exploration Initiative (Round 4) has awarded Red River a \$190,000 grant to undertake geophysical exploration (airborne drone magnetic survey and induced polarisation survey) to target extensions to known silver-indium mineralisation at Orient
- Red River plans to commence surveys shortly, with results to determine future drilling targets

Red River Resources Limited (ASX: RVR) is pleased to report high-grade silver results from sampling at the Orient silver-indium prospect in Herberton, Northern Queensland. RVR conducted initial reconnaissance sampling activities over the East and West Orient prospects, with sixteen samples taken at East Orient and eight samples taken from West Orient. The East Orient sampling returned assays up to 1,365 g/t Ag, 444 g/t In, 25.8% Pb and 18.7% Zn and the West Orient sampling returned assays up to 1,730 g/t Ag, 356 g/t In, 39.1% Pb and 32.1% Zn.

Figure 1 West Orient – Historical Workings along line of Lode



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Figure 2 East Orient Sampling (OERX010) - Assay Result: 1,365g/t Ag, 403 g/t In & 25.8% Pb



The Orient Project (EPM 27223) consists of the West Orient zinc-lead-silver-indium deposit and the East Orient exploration target. The Project is located 9km north of Irvinebank in Northern Queensland. Silver-lead mineralisation was discovered in 1886 and mining activities ceased in 1924.

Mineralisation occurs in vein systems up to 2m wide (controlled by fractures/shears) containing argentiferous galena, cerussite, anglesite, sphalerite, pyrite, marmatite, cassiterite (minor), and stannite (minor).

The lead-zinc-silver-indium mineralisation at Orient is believed to represent part of an epithermal precious metals system. The Orient vein and stockwork mineralisation are associated with a strongly faulted and deeply fractured zone near the margin of a major caldera subsidence structure.

For further information on the Orient Project, please refer to the ASX release "RVR secures high-grade polymetallic silver-indium deposits in QLD" dated 30 July 2020.



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Figure 3 Location of Orient and Isabel projects in Northern Queensland



Figure 4 Orient Sampling Locations



Sampling has confirmed the presence of high-grade silver-indium-lead-zinc mineralisation at the Orient Prospect. Of note is the consistently high silver grades across all samples (average silver grade of 346 g/t Ag).

Next Steps

RVR will shortly commence a high-resolution drone borne magnetics survey and targeted Induced Polarisation survey at Orient, funded by a \$190,000 grant from the Collaborative Exploration Initiative (CEI) – Round 4 which forms part of the Queensland Department of Natural Resource, Mines and Energy's New Economy Minerals Initiative.

RVR plans to use the results from the geophysical surveys to plan a drilling programme targeting extensions to the known high grade silver-indium rich vein systems.



East Orient Sampling

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Description

Northing

OERX001	308850	8080788	Oxide mineralisation from mullock dump (Nannum Amalgamated)
OERX002	308836	8080810	Advanced argillic altered rhyolite, selvedge to mineralisation (Nannum Amalgamated)
OERX003	308836	8080810	Gossanous mullock (Nannum Amalgamated)
OERX004	308850	8080788	Vuggy, boxwork rhyolite with sulpho salts
OERX005	308850	8080788	Oxidised mineralisation (Nannum Amalgamated)
OERX006	308850	8080788	Weathered host rock
OERX007	308961	8080873	Oxidised iron-rich gossanous rock from adit
OERX008	308947	8080977	Small pit, gossanous mullock
OERX009	326073	8077058	Yellow coloured Pb carbonate cerrusite gossan. From vein.
OERX010	308706	8081156	Gossan from mullock dump
OERX011	308697	8081134	Outcrop quartz veined weakly gossanous rhyolite
OERX012	308283	8081143	Yellow gossan from faulted host (Alice Tunnel)
OERX013	308283	8081143	Host rock adjacent to lode, trace sulphides
OERX014	308474	8081135	Yellow coloured Pb carbonate cerrusite gossan. From vein.
OERX015	308474	8081135	Insitu wall rock from vein in Orient East diggings
OFRX016	308393	8081133	Yellow coloured Pb carbonate cerrusite gossan. From vein.

Table 2 East Orient and Nannum Consolidated Sampling Assay Results

Sample ID	Au	Ag	As	Cd	Cu	In	Pb	Sb	Sn	Zn
	(g/t)	(g/t)	(%)	(g/t)	(%)	(g/t)	(%)	(%)	(%)	(%)
OERX001	0.0	226	0.0%	814	0.1%	444	1.1%	0.0%	0.0%	18.7%
OERX002	0.0	20	0.1%	5	0.0%	28	0.5%	0.0%	0.0%	0.1%
OERX003	0.1	26	0.9%	4	0.1%	92	4.9%	0.5%	0.1%	0.2%
OERX004	0.0	15	0.0%	6	0.0%	10	0.2%	0.0%	0.1%	0.1%
OERX005	0.0	80	0.0%	11	0.0%	19	0.9%	0.0%	0.1%	0.2%
OERX006	0.0	1	0.0%	3	0.0%	1	0.0%	0.0%	0.0%	0.1%
OERX007	<0.005	44	0.1%	0	0.0%	6	1.3%	0.0%	0.0%	0.0%
OERX008	0.0	9	0.1%	0	0.1%	33	0.5%	0.0%	0.1%	0.0%
OERX009	0.1	873	5.3%	115	0.3%	345	23.3%	0.2%	0.7%	0.6%
OERX010	0.0	1365	2.0%	8	0.6%	403	25.8%	0.2%	0.1%	0.5%
OERX011	<0.005	25	0.0%	1	0.0%	5	0.3%	0.0%	0.0%	0.0%
OERX012	0.1	397	7.3%	20	0.1%	420	16.1%	0.1%	0.0%	0.2%
OERX013	0.1	553	1.5%	87	0.1%	98	11.5%	0.0%	0.0%	0.2%
OERX014	0.0	84	2.2%	3	0.0%	87	5.4%	0.0%	0.0%	0.1%
OERX015	0.0	338	3.8%	152	0.1%	300	12.1%	0.1%	0.0%	0.4%
OERX016	0.1	181	3.7%	350	0.1%	393	3.7%	0.1%	0.1%	6.5%
Max	0.1	1365	7.3%	814	0.6%	444	25.8%	0.5%	0.7%	18.7%



West Orient Sampling

Table 3 West Orient Sample Descriptions

Sample ID	Easting	Northing	Description
OWRX001	306923	8080697	Strongly altered granite at underlay shaft
OWRX002	306900	8080690	Gossanous mullock at large adit and underlay
OWRX003	306900	8080690	Orient ore from mullock, altered granite with sulphide veins
OWRX004	306881	8080659	Ore (fine grained sulphide) from mullock (Watsons Tunnel)
OWRX005	306881	8080659	Oxidised gossan from mullock (Watsons Tunnel)
OWRX006	306881	8080659	Ore (coarse grained galena) from mullock (Watsons Tunnel)
OWRX007	306815	8080633	Massive sulphide (pyrrhotite, pyrite, galena)
OWRX008	306815	8080633	Massive fine grained galena-sphalerite

Table 4 West Orient Sampling Assay Results

Sample ID	Au	Ag	As	Cd	Cu	In	Pb	Sb	Sn	Zn
	(g/t)	(g/t)	(%)	(g/t)	(%)	(g/t)	(%)	(%)	(%)	(%)
OWRX001	<0.005	54	0.0%	3	0.0%	7	1.1%	0.0%	0.0%	0.0%
OWRX002	0.0	421	1.9%	20	0.2%	356	10.1%	0.8%	0.1%	0.3%
OWRX003	0.0	1045	1.5%	528	0.2%	124	26.7%	2.1%	0.2%	15.5%
OWRX004	<0.005	101	0.2%	930	0.1%	77	2.5%	0.0%	0.0%	31.8%
OWRX005	<0.005	273	0.1%	838	0.0%	43	7.2%	0.1%	0.0%	32.1%
OWRX006	<0.005	352	0.7%	377	0.1%	67	10.6%	0.3%	0.0%	11.5%
OWRX007	0.0	1730	0.1%	875	0.6%	182	39.1%	0.8%	4.0%	18.4%
OWRX008	0.0	97	0.0%	388	0.0%	10	1.6%	0.0%	0.0%	25.9%
Max	0.0	1730	1.9%	930	0.6%	356	39.1%	2.1%	4.0%	32.1%



Competent Persons Statement

Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr Steven Harper who is a member of The Australasian Institute of Mining and Metallurgy, and a full time employee of Red River Resources Ltd., and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).

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

About Red River Resources (ASX: RVR)

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

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

RVR has recently acquired the high-grade Hillgrove Gold Project in New South Wales, which will enable RVR to build a multi-asset operating business focused on base and precious metals. Gold production at Hillgrove is scheduled to restart at the end of CY2020.

On behalf of the Board,

Mel Palancian Managing Director Red River Resources Limited

For further information please visit Red River's website or contact:

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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 representivity 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. 	 Rock samples were either taken from vein material insitu or random samples of mullock on old mine dumps. Samples were selected by company geologists to be representative of the different rock and vein types on the dumps and from insitu vein and wall rock from historic workings Samples were bagged and 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 consisted of 25g Fire Assay with AAS finish for Au and four acid digest with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) analysis for the following elements; Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y Zn, & Zr. 				
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). 	 No drilling was carried out 				
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. 	• No drilling was carried out				
Logging	 Whether core and chip samples have been geologically and geotechnically 	 A brief description of the rock samples was completed. 				



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Sub- sampling	 logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. If core, whether cut or sawn and whether quarter, half or all core taken. 	 Photos of each sample were taken for reference. No sub sampling was undertaken. The entire rock chip sample was sent to the laboratory for
techniques and sample preparation	 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 	 analysis. Sample preparation is industry standard, occurring at an independent commercial laboratory Samples were crushed to sub 6mm, split and pulverised to sub 75µm in order to produce a representative sub-sample for analysis
	 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. 	 The sample sizes are considered to be appropriate to correctly represent the mineralisation style
	 Whether sample sizes are appropriate to the grain size of the material being sampled. 	
Quality of assay data and laboratory	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	 The assay methods employed are considered appropriate for near total digestion No quality control samples were inserted into the sample batch
tests	 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. 	 A check of the standards and duplicates analysed by the laboratory showed the results were within confidence limits.
]	 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. 	
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. 	 Laboratory results are reviewed by Company geologists Due to random nature of the rock sampling from the mullock dumps and veins within historic workings, collection of a duplicate sample to check the high grade samples is not possible. The assay files (.csv and pdf) from the laboratory are stored on the Company Server at Thalanga

The assay data was cross matched with the



Criteria	JORC Code explanation	Commentary				
	 Discuss any adjustment to assay data. 	 sample data and copied into spreadsheets for use in evaluating the results. There were no adjustments to the assay data 				
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. 	 Rock chip samples were located using a hand held GPS with accuracy +/- 3m Coordinate system used is MGA94 Zone 55 				
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 number of samples collected at each site reflects the abundance and variety of material on the dumps and accessible vein material 				
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. 	No drilling was carried out				
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 				



Section 2 Reporting of Exploration Results

(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 	 The sampling was conducted on EPM27223 EPM27223 is held by Cromarty Resources Pty Ltd. (a wholly owned subsidiary of Red River Resources) All leases/tenements are in good standing
Exploration done by other parties	 licence to operate in the area. Acknowledgment and appraisal of exploration by other parties. 	 Exploration activities have been carried out (underground mapping, Diamond drilling, surface geochemical surveys and surface mapping, pre- feasibility study) by Great Northern Mining Corporation and Mareeba Mining and Exploration over the West and East Orient areas from 1978 to
		 1989 Exploration activities have been carried out (soils and rock chip sampling) around Orient West and East by Monto Minerals Limited from 2014 to 2017
Geology	 Deposit type, geological setting and style of mineralisation. 	 Mineralisation occurs in vein systems up to 2m wide (controlled by fractures/shears) containing argentiferous galena, cerussite, anglesite, sphalerite, pyrite, marmatite, cassiterite (minor), and stannite (minor). The lead-zinc-silver-indium mineralisation at Orient is believed to represent part of an epithermal precious metals system. The Orient vein and stockwork mineralisation are associated with a strongly faulted and deeply fractured zone near the margin of a major caldera subsidence structure.
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. 	 No drilling was carried out by Red River. All drilling carried out by Great Northern Mining Corporation is detailed in ASX release "RVR secures high-grade polymetallic silver-indium deposit" dated 30th of July 2020.



Criteria	JORC Code explanation	Commentary
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 	• No drilling was carried out
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. 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'). 	• No drilling was carried out.
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). 	• Exploration of the Orient area is ongoing, with high resolution drone borne magnetics survey and targeted Induced Polarisation geophysical survey followed by drilling