

#### **Coziron Resources Limited**

ABN: 91 112 866 869 Level 24, 44 St George's Terrace Perth Western Australia 6000 PO Box Z5183 Perth WA 6831 Phone: +61 8 6211 5099 Facsimile: +61 8 9218 8875 Website: www.coziron.com

The Company Announcements Office ASX Limited Via E Lodgement

30 October 2019

# QUARTERLY ACTIVITIES REPORT TO

# 30<sup>TH</sup> September 2019

# **Capital Raising**

• Raised \$2.975 million through an oversubscribed placement to institutional and professional investors.

## Yarraloola Iron Ore – West Pilbara

- Metallurgical programme on stored sonic core from the Robe Mesa is underway.
- 252 samples from 10 stored RC drill-holes from the Ashburton magnetite project are being processed by Davis Tube for magnetite yield and quality.
- A gravity and seismic survey covering the Ashburton project is more than 75% complete.

## Croydon Top Camp Project (CTCP) – North Pilbara

- CZR collected 1109 soil samples to extend grids over the Top Camp and Martin prospects and follow-up other areas with anomalous geochemical and geophysical responses.
- Prospectors using metal detectors have now reported a total of 190.7 grams of gold (not the property of CZR) during 2018 and 2019. The distribution of the nuggets and photographic evidence supports a local source from zones of quartz-limonite veins within the calcareous turbidites.
- Top Camp prospect reports nuggets within an area where the surface geochemistry is strongly anomalous in gold-pathfinder elements such as arsenic and antimony.
- DMIRS has approved RC drilling at the Top Camp gold prospect with 2000m planned and the Martin Prospect with 500 m planned to test the EM conductor down-dip from a gossan that reports copper (11.6%) and gold (2.6g/t).

## Shepherds Well Project – West Pilbara

• A total of 373 gridded -2mm soil samples were collected mainly from the Dorper and Suffolk base-metal and gold anomalies and have been submitted for analysis.

# Buddadoo Project – West Yilgarn

• Six prospects with an independently generated high probability for gold mineralisation have been soil sampled since the end of the Quarter.



# **Corporate**

Coziron Resources Limited (ASX:CZR) (the "**Company**" or "**CZR**") is pleased to provide the following update on its activities for the last quarter. The Company raised \$2,975,000 (before costs) through the issue of 297,500,000 new Shares at an issue price of \$0.01 per share. Applicants also received one new option for every two shares issued. The new options have an exercise price of \$0.02 per share and an expiry date of 8 August 2021.

# **Project Summaries**

Coziron Resources is advancing exploration on five projects, but the focus of activities this quarter has been the Yarraloola, Croydon Top Camp ("**CTCP**") and Shepherds Well Projects in the Pilbara and the Buddadoo Project in the mid-west region of Western Australia. Details of each project and a summary of the activities and results are presented in the sections below.

# Yarraloola Project – West Pilbara

The Yarraloola project is located about 100km southwest of Karratha and contains **+90Mt @ 53% Fe** (calcining to 60% Fe) of indicated and inferred JORC compliant CID (Pisolitic ironstone) in the Robe Mesa, Robe East Extension and P529 deposits (Fig 1). The resource includes a higher grade surface interval on the Robe Mesa of 24.9Mt @ 56% Fe (calcining to 62.7% Fe; ASX Release: 7 December 2015, 8 February 2016, 26 April 2017, 9 May 2017). The Company has commenced a metallurgical study of stored sonic drill-core (ASX Release: 22 November 2016) and continues to evaluate opportunities for the development of the Robe Mesa, including discussions with potential partners, against the backdrop of the improved demand and pricing for iron ore.

CZR is also exploring a new style of volcanic-hosted magnetite mineralisation in the West Pilbara that has a similar geological setting to the Fortescue Metals Group's (FMG) Iron Bridge Project. The Ashburton has Davis tube results from RC and diamond-core with mass recoveries up to 42% and concentrates at a P80 of 22 microns with Fe greater than 67% and SiO<sub>2</sub> less than 5% (ASX Release: 28 April 2016, 3 August 2016, 1 June 2017). During the quarter, the Company sampled intercepts from 10 stored RC holes with magnetic susceptibility greater than 10,000 SI units to generate a total of 252 predominantly 5m interval samples. The maximum intercepts sampled are from YAR223 and YAR227 which are both from Spinifex Hill and reported 121 m @ 26.4% Fe between 64 and 121 m, and 137 m @ 28.3% Fe between 44 and 181 m in YAR 227 (ASX Release: 1 June 2017). These were submitted to Bureau Veritas Laboratories in Perth for processing by Davis Tube. Results for magnetite mass-yield and quality will be released when they have been received and interpreted.

The Company also contracted a gridded gravity and seismic survey to cover the Ashburton Project during the quarter. This survey is more than 75% complete. Once the results are processed and interpreted they will provide additional constraints for the selection of the RC and diamond drill targets within the Ashburton magnetite project and contribute to the generation of a JORC-compliant resource(Fig 2).





Fig 1 Yarraloola tenements with the location of Robe Mesa, Robe East Extension and P529 pisolitic ironstone deposits, the Ashburton magnetite project and the traces of the major iron-formations in the West Pilbara of Western Australia.





Fig 2 Location of the 2017 RC holes sampled for Davis Tube, gravity and seismic survey stations for the Ashburton Project overlain onto the geology as mapped by Coziron Resources.

# Croydon Top-Camp Project (CTCP) – Pilbara

CZR is acquiring a 70% interest in the 317 km<sup>2</sup> Croydon Top-Camp project (CTCP, E45/2150) from the Creasy Group which is located about 100km south-east of Karratha in the Pilbara. The tenement is subdivided into three discrete blocks that cover a crustal-scale north-east trending fault-system which separates granitic rocks of the Pilbara Craton from deformed, metasedimentary rocks of the Mallina Basin. The company is focussed on the discovery of lode-style and related gold deposits which are the major source of production in Western Australia. The project has a database of historical exploration and this has been increased by the acquisition of high-resolution magnetic and



radiometric coverage, re-assay of selected auger pulps to verify and increase the geochemical coverage and commencement of infill and extensional sampling of more prospective areas (ASX Release: 10 October 2018 and 6 December 2018; 1 April 2019).



Fig 3. Location of soil samples collected in September 2019, the distribution of prospector-recovered gold nuggets overlain on the gold distribution in auger and soil samples from the Top Camp and Middle Camp Prospects and ESRI satellite imagery as a back-drop.

#### Top Camp Area - Sampling and Drill-site Selection

During the quarter, CZR soil sampled and mapped in the Top Camp to Middle Valley areas of the CTCP where prospectors are reporting the recovery of gold nuggets by metal detector to extend the historical soil and auger grid to cover areas with newly identified prospectivity (Fig 3). Approximately 700 soil-samples sieved in the field at -2mm have been collected and transported to Bureau Veritas Laboratories in Perth (ASX Release: 11 October 2019). These are submitted for full-suite analysis including gold by fire-assay, whole-rock XRF and lazer-ablation ICP for major and trace-elements on a fused disk. Results will be reported when they have been received and interpreted.



Earthmoving equipment to complete the upgrade to the tracks and development of the pads for a 2000m reverse circulation ("**RC**") drilling programme is being mobilised to site for a planned mid-November commencement of the drilling.

## Top Camp Prospect - Gold Recovered by Prospectors

CZR has now received notifications during 218 and 2019 for the recovery of a total of 190.7 g (ASX Release: 20 September 2018; 25 July 2019; 11 October 2019). Photographic evidence suggests that the recovered gold is being released from quartz-carbonate veins hosted by calcareous turbidites (Fig 4). The gold nuggets, which are not the property of the CZR, are being recovered from 40E Prospecting permits that cover the central parts of the CTCP. The permits allow prospectors to undertake small-scale exploration for gold on the surface using hand-tools such as panning, dryblowing or metal-detecting. A condition of the issue of these permits is that the prospectors must report the amount of gold recovered to WA Department of Industry and Safety, with a copy of the report supplied to the underlying holder of the Exploration License.



Fig 4 Photographs of the gold nuggets being recovered from the core of the Top Camp area (216 nuggets for 36grams) and an example of a gold particle intergrown with laminated vein consisting of a core of iron-oxide and a margin of lighter coloured quartz and carbonate (photos are provided by P Gower and the gold is not the property of Coziron Resources Ltd).

Although the recovery of coarse gold particles by prospectors is not in itself economically significant, the locations as reported are being plotted and integrated with other geological and geochemical data from CTCP and the results are being used to identify and prioritise targets for further work. While the recovered gold is not the property of CZR, the ongoing reports from the prospectors are important in identifying areas where there are no historical reports of gold recovery and the precisely located nuggets are highlighting geological structures with the potential to host coarse-grained gold

## Martin Prospect Area - Sampling and Drill-site Selection

Soil sampling and mapping in the Martin area of the CTCP has focussed on the generation of a sample grid around a small historical pit on the Prospect A gold and base-metal gossan and a drainage sample among published records from the Geological Survey of Western Australia that reported particles of gold (Fig 5). The Prospect A gossan is hosted by a sequence of schists and



gneisses that include mafic and felsic rocks that are interpreted as being part of a greenstone sequence. The greenstones rest on a basement of granodiorite to the West and are unconformably overlain by units of the Mallina Basin to the East. Coziron is exploring the potential of the greenstone sequence as a host for volcanic-hosted massive sulphide and associated gold deposits.

Approximately 400 samples of soil sieved at -2mm in the field have been collected and submitted to Bureau Veritas Laboratories in Perth for full-suite analysis (ASX Release: 11 October 2019 Fig 5). The purpose of the sampling is to determine the extent and tenor of any geochemical anomalism extending from the gossan and whether the gold occurrence in the historical drainage sample can be confirmed. Soil samples have also been collected across the surface projection of a historical conductive EM-Anomaly 11 to determine whether there is any associated geochemical anomalism supporting the presence of gold and base-metals at depth. Results from the soil samples will be reported once they have been received and interpreted.

At Martin Prospect A, 500m of RC drilling is planned to test the down-dip extension of the gold-copper gossan.



Fig 5. Location of soil samples collected in September 2019 from the Martin Prospect with the locations of the Martin A gossan and the historical conductive EM-anomaly 11, and Croydon Anticline 1 site from the Geological Survey of Western Australia gold occurrences overlain on the total magnetic intensity with outlines of the geological units as mapped by CZR.



## Shepherds Well Project – West Pilbara

Shepherds Well (E08/2361), in the West of the Pilbara, is located about 60km south-west of Karratha. The project covers an area that is 25-50km from a new proposed public access port at Cape Preston East, serviced by tracks from the Great Northern Highway and is crossed in part by an easement for the proposed West Pilbara railway. The region has a basement of basaltic, felsic and metasedimentary rocks that are unconformably overlain by predominantly mafic volcanics from the Fortescue Group and sediments of the Hamersley Basin. Programmes of soil and rock-chip sampling and mapping have identified nickel (Ni), copper (Cu) and gold (Au) anomalism associated with an outcrop of talc-carbonate rock at Dorper Rise and lead (Pb), zinc (Zn) and silver (Ag) associated with a linear magnetic anomaly at Suffolk Ridge (ASX Release: 21 March 2017, 13 September 2016). In addition, where soil and drainage samples have been collected near the base of the Fortescue Basalt, they typically report anomalous gold.

During the quarter, a total of 373 soil samples, screened at -2mm in the field were collected to infill and extend the grids from the Dorper and Suffolk anomalies. The samples were transported to Perth and submitted to Bureau Veritas Laboratories for comprehensive analysis and results will be released when they have been received and interpreted.

## **Buddadoo Project – Murchison Province**

The Buddadoo Project (E59/1350 and the recently granted E59/2349) cover part of the Gullewa Greenstone Belt that contains gabbroic rocks with bands of massive and disseminated vanadiferous titanomagnetite along with prospectivity for gold and copper mineralisation. The project is located about 200 km east of Geraldton Port and 60 km from a rail siding at Morawa that connects to Geraldton and in proximity to the bitumen-road between the towns of Morawa and Yalgoo.

Since the end of the quarter, CZR has undertaken a programme of soil sampling and mapping over sites with historical reports of gold mineralisation and the independently generated targets for gold mineralisation at Buddadoo (ASX Release: 29 July 2013, 17 October 2017 and 21 November 2018). A total of 1545 samples, screened at -2mm in the field have been collected and will be transported to Bureau Veritas Laboratories in Perth for analysis. Details of the sampling programme will be published when the results become available and have been interpreted. The company already has DMIRS permission for RC drilling of the targets.

The Company also has DMIRS approval for follow-up drilling of the vanadiferous magnetite mineralisation in the Buddadoo Gabbro that extends over a strike length of about 6km (ASX Release: 28 February 2018, 21 March 2018, 5 April 2018 and 7 February 2019). RC samples upgrade at -150 microns by low-intensity magnetic separation to Fe greater than 62% and combined SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> of less than 5% and would represent a low-contaminant feedstock for vanadium recovery by roast-leach. However, as the grind-size reduces to a P80 of -45 microns, concentrates report Fe from 66-68%, V<sub>2</sub>O<sub>5</sub> from 0.8 to 1.86%, TiO<sub>2</sub> from 1.4 to 5.7%, contaminants SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> at less than 1% and this is a potential feedstock for iron-ore pellets used in the direct smelting of vanadiferous steel. Future drilling will be planned with follow-up on the gold targets.



#### Yarrie Project – North Pilbara

The Yarrie Project consists of six granted exploration licences (E45/3725, E45/3728, E45/4065, E45/4433, E45/4604, and E45/4605) that cover a total of 419km<sup>2</sup>, about 160km east of Port Hedland. Yarrie is serviced by bitumen and gravel roads and a natural gas pipeline between Pt Hedland and the Telfer copper-gold mine. The BHP-owned rail connection between the Yarrie mining area and Port Hedland also services this area.

The Yarrie tenements have the potential to host high-grade (+62% Fe) iron-ore deposits within the magnetically active Archaean-age Nimingarra Iron Formation. Historical RC drill intercepts with Fe greater than 62% from the Cabbage Tree and Kennedy Gap prospects require follow-up. There is also the potential for gold and base-metals associated with the strongly deformed, mixed mafic to ultramafic volcanic rocks that have interbedded metasediments in the Pilbara basement. In addition, E45/3278 covers a portion of the basal interval of the Fortescue Group that is prospective for gold in conglomerate.

No fieldwork was undertaken during the Quarter.

# ABOUT COZIRON RESOURCES LIMITED

Coziron Resources Limited has exploration focussed on the Yarraloola (829km<sup>2</sup>), Shepherd Well (77km<sup>2</sup>), Croydon Top-Camp (317 km<sup>2</sup>) and Yarrie (419km<sup>2</sup>) Projects in the Pilbara region and Buddadoo (303km<sup>2</sup>) Project in the Yilgarn region of Western Australia.

For further information please contact Adam Sierakowski or Rob Ramsay on 08 6211 5099.

#### COMPETENT PERSONS STATEMENT

The information in this report that relates to mineral resources and exploration results is based on information compiled by Rob Ramsay (BSc Hons, MSc, PhD) who is a Member of the Australian Institute of Geoscientists. Rob Ramsay is a full-time Consultant Geologist for Coziron and has sufficient experience which is 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". Rob Ramsay has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.



Granted

Project	Location	Tenement Number	Economic Entity's Interest at Quarter End	Change in Economic Entity's Interest During Quarter
Yarraloola	West Pilbara, WA	E08/1060	85%	No Change
Yarraloola	West Pilbara, WA	E08/1684	85%	No Change
Yarraloola	West Pilbara, WA	E08/1685	85%	No Change
Yarraloola	West Pilbara, WA	E08/1686	85%	No Change
Yarraloola	West Pilbara, WA	E08/1824	NIL	Relinquished
Yarraloola	West Pilbara, WA	E08/1825	NIL	Relinquished
Yarraloola	West Pilbara, WA	E08/1826	85%	No Change
Yarraloola	West Pilbara, WA	E08/2408	100%	No Change
Yarraloola	West Pilbara, WA	M08/519	85%	Application
Yarraloola	West Pilbara, WA	P08/666	100%	No Change
Yarraloola	West Pilbara, WA	P08/669	NIL	Relinquished
Shepherds Well	West Pilbara, WA	E08/2361	70%	No Change
Yarrie	East Pilbara, WA	E45/3725	70%	No Change
Yarrie	East Pilbara, WA	E45/3728	70%	No Change
Yarrie	East Pilbara, WA	E45/4065	70%	No Change
Yarrie	East Pilbara, WA	E45/4604	70%	No Change
Yarrie	East Pilbara, WA	E45/4605	70%	No Change
Yarrie	East Pilbara, WA	E45/4433	100%	No change
Buddadoo	Mid-west. WA	E59/1350	85%	No Change

E59/2349

85%

Buddadoo

Mid-west, WA

# Coziron Resources Ltd – Changes to the Tenement Schedule in the past Quarter